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Addresses.

HOW NOT TO BE NERVOUS.*

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Nervousness seems to be the stepchild of medical practice—somewhat disliked, half understood, certainly neglected. For the average practitioner no problem in the theory of organic disease is too profound for attempted solution, no law of life too exalted for his aspiration, no bacillus so small as to elude his pursuit, but with such a triviality as nervousness, its nature, prevention and cure, he seldom seriously occupies his mind. To acquire a working knowledge of the brain is too much bother. To ponder the plain facts of heredity, development and child-rearing is too uninteresting. To cultivate a familiarity with the various passions and emotions, to search out manners of thought and feeling, or even to discover the dominating element in the life of a patient is quite impractical. To take the time to counsel those about to marry or to instruct the mother how not to spoil her children; to caution the father about his erratic son and give detailed instruction how to make him stable; to talk seriously to the young woman who is "all nerves" and lives in her emotions; to reason clearly and forcibly with the head of a family who is preparing himself for a premature break down—these are minor matters pertaining—to whom? to what? God knows, the physician does not. And yet if you will stop for a moment, take your finger from the pulse and your hand from the scalpel, your eye from the microscope and your thoughts from the microbe, I think you will agree with me that these trivialities contribute quite as much to human suffering and disappointment as do the infections, inflammations and neoplasms in the long category of human pathology. No apology, therefore, is made for the following remarks on that pest, nervousness. My regret is that an abler mind is not here to do the subject justice.

The initiative of all therapeutics should be prophylaxis; prevention is paramount to cure. The first and most effective preventive of nervousness is a reasonably long line of first-rate forbears. Like begets like, and the nervous system bows to the law of all life—the law of heredity; the law that governed your birth and mine and laid a heavy incubus on some of us; a burden of unstable nerves and abnormal susceptibilities; a burden that endures even unto the third and fourth generations.

To be able to present a specific illustration of the force of inheritance in the genesis of functional nervous affections, I have tabulated from my office records one hundred consecutive cases which might be included under the general term "nervousness," and I find that in 70 of them a neurotic heredity has been in evidence. Although a bad heredity is the most frequent and most potent factor in the production of nervousness, knowledge of this fact is not to lead us into apathetic resignation, but rather make us face the difficulty with wise determination. The poor victim, instead of being allowed to dissipate the modicum of stamina a bitter fate has given him, is first to be shown just what his capital is, and then is to be taught just how to make the most of it.

Next to the omnipresent, inevitable laws of inheritance comes the never-ceasing formative power of environment. The impress of extraneous influences begins at birth and ceases only with the extinction of life, but childhood and youth are the plastic stages. Here, as elsewhere, the result equals the force divided by the resistance. "As the twig is bent the tree's inclined," and second only to the mystic law of birth, which decrees that the nervous system shall have this or that potentiality, is the force that guards or mars its early growth. Unfortunately, in too many instances the unstable and maybe irrational parents who gave to the child his poor nervous apparatus are the ones who guide, or misguide, his early steps into the perdition of nervous wreckage. To look on such a child with the assurance that he is growing up to be the victim of nervous unbalance, inebriety or insanity, should not be idly to feel the despair of conscious impotence, but should be coexistent with an effort to avert the disaster. Wherefore, I beg to say a few words that bear particularly on nervousness in the child and its avoidance, but with this understanding, that they apply almost equally to the adult, and that what is said later about grown people applies to children to the extent of their development.

For preventing nervousness in the child or removing that already present, nothing is so effective as the toughening of the body and mind. The frequency with which I hear from a nervous patient that "she was never strong," "he was a delicate child," "she was always sickly," etc., is truly startling. A child who is made to have hard muscles, strong lungs and a vigorous digestion; who can bear changes of temperature and endure pain is already a long way from nervousness. More important still is toughness of psychic fiber. The child who can support disappointment, who can be "crossed" without a tantrum, and who habitually obeys is building a bulwark against "nerves," and the one who is not easily frightened, has self-control and a budding courage

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has nipped half a dozen neuroses in the bud. But to procure this toughness, be it understood, a certain exposure to bodily discomfort and mental hardship is necessary. This world is no "Happy Valley," and children brought up like Johnson's Rasselas are as little happy and as little able to cope with the realities of life as was that puerile prince. Many a father whose rugged rearing has given him a robust frame and a sturdy nervous sytsem takes infinite pains and pleasure in denying his sons the very training that made a man of him. His unwise love strangles in infancy whatever of sterling qualities he may have transmitted to them.

Two capital errors in the training of children frequently come to my notice; errors that prepare the little unfortunate for later nervousness or fairly drive him into it. They are, first, leading the child into pleasures and duties beyond his years; second, magnifying his importance in the family and society. It is quite as dangerous to give to children the pleasures of adults as to require of them the labors of the mature. That there is a physical basis for all intellectual processes seems sometimes to be forgotten. Successive groups of brain cells and fibers come into existence with the successive years, and before the birth of these tissues certain psychic functions may not naturally exist. To force mature functions from an immature organism is to violate the virginity of Nature—a crime daily committed in the home and in the school, to be expiated in the sick-room, sanitarium or asylum. In the beginning, the fault generally lies in a mixture of vanity and ignorance on the part of parents. They wish their children to excel in attainment and they like to see them indulging in all the pleasures and excitements of our complex social existence. Later, the young person whips himself on to ruin. To instance only one disaster: the annual casualties following graduation from hot-house schools and colleges easily outnumber those of the whole disastrous camp life and battles of our late Spanish war.

As regards the second error just mentioned, it has seemed to me that if deliberately planned and scrupulously executed, the bringing up of some children could not better promote what I venture to call centripetal development—development centering in self. The child is not only made to be, but is made to know that he is, the focus of all domestic doings, the hub of the family wheel. Every sensation, perception, conception and emotion is an event. The unlucky youngster develops with a distorted view of the relation of things. He sees enormously enlarged images of his tastes, his clothes, his pains, his likes, his aversions and his talents. These proportions do not fit the facts of existence and the unfortunate individual is as sure to be caught in some form of nervousness as is one to go astray in a labyrinth of grotesque mirrors.

I must note one more point on prophylaxis of the neuroses in children, a point already lightly touched, and then we shall leave the little people—much as I should like to linger. In one form or another fear enters into the makeup of nearly every sort of nervousness. It paralyzes judgment, ambition and the higher emotions. Childhood should be absolutely fearless; fearless for self and for the future. That the young should have no fear of man or God, no thought for the morrow is natural and proper. It is natural and wholesome that the child should have no regard for his organs, no knowledge of hygienic rules, no conception of the significance of pain. When the parent makes the child a party to his apprehensions, confides his prescience of ills and communicates the ominous augury of bodily symptoms, he is assiduously rearing a little hypochondriac who will live to condemn the parent who made him a burden to himself and a curse to others. Fear of the dark, of thunder and lightning, of animals, burglars, accidents, spirits, devils and death is born of parental foolishness, and is always potentially the seed of later nervousness. Quite recently a physician, who for many years has had at intervals typical and intense agoraphobia with fear of sudden death, told me with the utmost naivete that when a child he never could sleep alone. It seems never to have occurred to him that if he could not sleep alone it was because he was allowed to have such a fear, or, quite as likely, because the parents carelessly or deliberately planted fear in his infant mind.

After birth and bringing up, after the facts of heredity, childhood and youth comes adult life—the life of man and woman. But they are as children still, mutable, mobile, imperfect always, swayed by a thousand influences, slaves to countless circumstances. How shall they manage not to be nervous? By proper living; proper working and playing, eating, drinking and sleeping; above all, proper thinking and feeling.

Labor may have been a calamity to Adam and Eve. Nowadays it is no curse, but the bright particular star of health and happiness. To have a wholesome ambition and to work with enthusiasm for its fulfilment, these form the very essence of a vigorous existence. Fortunately, man is now so constituted that to work, and work with an object, is a function necessary for his completeness. To cross this dictum of Nature is to suffer—physically, mentally or morally, in many instances nervously. Many an invalid would be well today if he had a worthy purpose in life and happily labored for it. Many a hysterical woman would be stable and strong had she consistently striven with singleness of aim for a laudable object. The purposeless idler is ever a weakling in unstable equilibrium, upset by every vagrant mood.

To say that overwork is not a very frequent cause of nervousness is frankly to enter the ranks of heterodoxy, but my experience is that work, hard work, is wholesome. To work hard is to get tired; to work too hard is to get too tired; but I seldom see the familiar spectacle of nervous breakdown due to work alone. It is the unwisdom that goes with the work. It is worry, the strain of doubt, the wear of ungratified ambition, the depression of failure or the passionate play of other emotions that makes the nervous wreck.

Though man's nature demands work for his development and equipoise, it none the less needs play. Long before the birth of physiology it was known that the greatest efficiency of any living tissue was attained by alternating activity and rest. The cycle of the seasons, the night following the day, the succession of blossom, fruitage and quiescence, the universality of holidays, are so familiar as to cause no thought, but all life is attuned to this wonderful rhythm of action and repose. Even the busy heart that never ceases throbbing day or night from birth to death, so beats that every contraction is followed by a period of rest almost twice as long. That is, a healthy heart works only about one-third of the time. What is a good law for the heart is not a bad rule for the brain, but for this complex creature called man, something more than mere rest is necessary. Be-

sides relaxation we must have diversion, amusement, fun, if you please. We must play if our work is to be effective and long sustained and if we are not to be nervous.

The advisability of reasonable eating, the pernicious effects of alcohol on the nervous system and the havoc wrought by drug habits are so universally recognized as to need no mention. With respect to diet, however, I can not refrain from noting one bad habit that has seemed to me to be very frequent in nervous people and to contribute materially to their troubles. I mean the starvation habit—the obsession, born of poor doctors or officious friends, that makes the victim eschew one article of food after another until he is trying to exist on Fakem's nularine and Buncombe's cereal.

Of all nervous sedatives and tranquilizers of mankind none equals "tired Nature's sweet restorer, balmy sleep." Sancho Panza truly said "it is meat for the hungry, drink for the thirsty," and, as a matter of fact, we know that one can live without sleep just about as long as he can live without food. Children should be encouraged to sleep, young people should be made to sleep and the nervous person should be taught to sleep. The sins of parents who carelessly or designedly shorten the children's sleep hours is only equaled by the folly of grown-ups who deny themselves sleep for the sake of business or pleasure. Alarm clocks are an abomination unto the brain and an evidence of hygienic evil.

A deal of nervousness is caused or helped along by misdirected energy, misplaced worry, longing for baubles, the fighting of phantoms. To recognize the really important things in life is one of the most difficult tasks of judgment that come to the individual. Having settled on the essentials, it is perhaps equally difficult to ignore all else. This is certain; the man or woman who can early reach a wise decision in the matter and then steadily follow the tenor of this decision could not be nervous, even with the aid of ancestors and the connivance of parents. Fretting over non-essentials, striving for objects not worth the having, fright at empty forms, looking inward at little self instead of outward at the greatness of creation—these are the follies that keep us nervous. And closely allied to them is the nervousness of indecision—the demon of reconsideration. How many thousands of people have worn themselves to nervous shreds by turning over and over the same problem, reaching again and again the same conclusion. It is well worth while to acquire a habit of prompt and definite decision. To allow one's self to reopen settled questions begets a habit of doubting one's ability, or even reliability, pernicious in the extreme.

If to define for one's self the really great and valuable is important, equally so is the determination of one's own place and one's own value. Realization of the fact that the individual is merely a minute item in a limitless cosmos, at most a not very important integer in a complex society, should be the first step toward a rational adjustment of values on which must rest that serene placidity which is the antithesis of nervousness. To be plainer still, the person who is brought up, or brings himself up, to feel that he is of paramount importance; that his feelings, wishes and opinions are always entitled to prompt consideration, is on the very highway to nervousness. He is doomed to much disappointment; many rude shocks to his sensibilities breed a gnawing bitterness of spirit; he naturally gravitates into the neuropathic vice of introspection. To develop the conception that he is peculiarly constituted; that he is a wonderfully unique organization of finer mechanism than his fellow-mortals, is continuously calamitous for anyone. As a matter of fact, one man's stomachache is much like another man's colic, one woman's aversions about as strong as another woman's antipathies, A's grief as keen as B's sorrow. The perfectly normal individual carries as part of his innermost consciousness the knowledge that pain, tears and troubles come to all and that what has been borne by man for countless ages can be endured again. Such knowledge, too, must in part form the natural base of true altruism and effective ethics. That lofty ethics should constitute a goodly plate in the armor against nervousness is seldom mentioned, but practical experience has time and again taught me that sincere love of truth, justice and self-control is a mighty help in the fight against nervous instability. Of particular value are a clear appreciation and uniform practice of the exact truth. They are the best protection against nervous trouble whose essential feature is repeated exaggeration and self-deception, if not deception of others.

Sooner or later, consciously or unconsciously, every ambitious person must make a more or less deliberate estimate of his ability. Blest be he who does it early and accurately. Ambition is a wonderful force and makes for progress; emulation is an excellent stimulus, and industry is better than both, but in excess the combination has worked the nervous ruin of many. The young man of high aims who wishes to rival the success of a Lincoln, an Astor or a Virchow, and who thinks that the only necessary conditions are industry, honesty and frugality, makes an egregious error. He reckons in ignorance of two stupendous factors: physical endurance and mental capacity. These are facts as indubitable and as inevitable as death itself. It must come to every physician, it certainly comes frequently to me, to explain to the nervous student that because his colleague can keep well on five hours of sleep is no reason why he should be able to do the same; to show the irritable, sleepless business man that even if his competitor can work fifteen years without a vacation, he can not do likewise; to convince the ambitious Mrs. X. that she simply is not equal to the attainment at the same time of domestic excellence, social eminence and philanthropic distinction as is the brilliant Mrs. Y.; and to tell the disappointing truth to many that although some fortunate beings are given master minds in master bodies, this gift is not for all, and that to spur on the weary faculties is to drive to ruin. Still, if one must plainly see that his talents are far below the maximum, even far below what he had hoped and believed, why should he dissipate what he has in attempting to be what he is not and in fretting because he can not? How many of us exhaust ourselves and wear out our friends by chafing against the chains of the unalterable! Imperturbability is a prince of peace.

Of especial danger is the weakness of being ruled by the feelings—by emotion rather than by reason, by impulse rather than by judgment. In the bitterness of recognized folly and acknowledged frailty, Burns wrote for his own epitaph:

* * * * * *

Is there a man whose judgment clear,
Can others teach the course to steer,
Yet runs himself life's mad career
Wild as the wave;
Here pause—and, through the starting tear,
Survey this grave.

The poor inhabitant below,
Was quick to learn and wise to know,
And keenly felt the friendly glow,
And softer flame;
But thoughtless follies laid him low,
And stained his name!

Reader, attend,—whether thy soul
Soars fancy's flights beyond the pole,
Or darkling grubs this earthly hole,
In low pursuit;
Know prudent, cautious self-control
Is wisdom's root.

If this was written with the plaintive note of a sensitive spirit prisoner to turbulent passions, it was also written in the light of a keen perception. A principle of human development is bound up in the lines. The head is to guide the heart. Impulse and emotions are to be governed by knowledge and wisdom.

Inhibition should never sleep. Exaggeration of the instinct of fear and apprehension not only makes people nervous, but is nervousness itself. The thousand and one needless worries over the future are simply providence for the morrow gone mad. Fear of disease and death is normal, but to allow the mind to dwell on these fearsome things is to become a hypochondriac with no more stability than the leaf on the aspen. To shrink from pain is as natural as hunger and as necessary for the preservation of the race, but to be a slave to suffering is to be a nervous wreck. Pain should be a signal officer only—to inform, never to command. Even the godly emotion of parental love must not be too exuberant. How many mothers become mere bundles of nerves through needless fussing about the children, and how often a father falls into presenility from the constant strain to feather the nest superlatively well. To weep is normal, but the one who never restrains the impulse to cry ultimately becomes flabbily lachrymose, a nuisance to self and others. Every human being has, now and then, a "fit of the blues," but he who allows himself to be regularly dominated by mental depression becomes an enervated personification of gloom, a victim of the most distressing form of nervousness.

To sum it all up, if you wish never to be nervous, live with reason, have a purpose in life and work for it, play joyously, strive not for the unattainable, never regret the unalterable, be not annoyed by trifles, aim to attain neither great knowledge nor great riches, but unlimited common sense, be not self-centered, but love the good and thy neighbor as thyself.

THE SCIENTIFIC EXHIBIT AND ITS FUTURE.

CHAIRMAN'S ADDRESS, DELIVERED BEFORE THE SECTION ON PATHOLOGY AND PHYSIOLOGY, AT THE FIFTY-THIRD ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, AT SARATOGA SPRINGS, N. Y., JUNE 10-13, 1902.

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The modern medical society has wrought powerfully for the advancement of scientific medicine, stimulating investigation, discovery and authorship, adding to the knowledge of methods in diagnosis and treatment, and fostering professional cordiality. Intelligent and progressive physicians were quick to appreciate the value of the society movement and give it their enthusiastic support. Three decades have witnessed most prolific multiplication of medical societies. There are county, district, city, state, interstate, national and international organizations, representing the field of general medicine and the specialties. As with medical colleges and journals so may the tendency to society multiplication be deplored. A worthier criticism might be offered on the volume and character of matter read at society meetings. The views herein expressed are more especially applicable to the larger organizations which convene annually. It may be asserted without fear of controversy that too many papers are submitted. A few only have just claim to originality; some are attractive and vigorous in style, others are conspicuous for their tedious length and dreary compilations. Taken all in all the effect even on the most attentive listener is too often somnolent.

Present problems of society reform call for the curtailment of programs, the condensation and elimination of papers and the introduction of practical features which will entertain, instruct and make plain the latest advances in medical science. The surgical furor of the day has led occasionally to the operative clinic as a practical and interesting digression from the monotony of the usual program. But the valid objections are raised that it consumes much time and the personal advertisement it gives is apt to lead to professional criticism and discord.

Prompted by a conviction that there were other practical features less objectionable and equally interesting which might be made valuable adjuncts of society work, the committee on pathology of the Indiana State Medical Society made an appeal to the membership in 1897 for gross pathologic specimens and scientific exhibits of varied character, to be shown at the succeeding meeting. Agitation, appeals to local and professional pride and personal solicitations were resorted to, according to occasion and requirement. Most fruitful results followed the appeal. The number of exhibits reached almost 200 in 1898, and 800 in 1899, representing a wide range of material. Besides gross pathologic specimens, photographs, etc., the collection included bacteriologic demonstrations, such as the Widal test, guinea-pig and culture experiments, which presented tangible proofs of the important relationship between bacteriology and diagnosis, as well as its bearing on surgical and sanitary procedures.

The sentiment of members attending the meeting in 1899 was unanimously commendatory of this unique departure. Approval was forcibly expressed by appropriating $300 to bear the expense of taking the major part of the exhibit to the Columbus meeting of the American Medical Association the following week. Its cordial reception at that place was most gratifying to the Indiana profession. Interest in the movement was awakened in different quarters. Several state societies sought to establish a similar exhibit. Although not officially authorized to act, Dr. W. W. Keen, President of the American Medical Association, appointed a committee to take steps to inaugurate a pathologic exhibit at the Atlantic City meeting of the organization in 1900. The success of the project was gratifying alike to the executive officers of the Association and to the committee having in charge the work. It was a wholesome change to have an exhibit purely scientific and free from commercial taint. The Association signified its approval by making the feature permanent and granting a liberal appropriation for its maintenance.

The full consummation of the Pathologic Exhibit in a national and official sense was not achieved, however, until the meeting at St. Paul a year later. Profiting by the experience at Atlantic City it was hoped to secure

for St. Paul a better balanced exhibit, both in the scope and character of the material. In addition to practical exhibits, it was sought to present demonstrations of research and experimental investigation. In the main these hopes and desires were realized. The size and quality of the exhibit were in keeping with the great organization under whose auspices it was conducted. When it is remembered that the enormous labor necessary in the preparation and presentation of the exhibit was performed gratuitously by exhibitors, one can but marvel at the results attained. It afforded eloquent proof of the utter unselfishness of the true scientific spirit. A corps of over fifty pathologic workers labored faithfully at home for the success of the enterprise, and at the St. Paul meeting subordinated pleasure to the successful demonstration of the exhibit. It was made a great common school of pathology for all who attended the meeting. The laborers in the good cause have merited and won the grateful thanks and unstinted praise of the whole Association.

It is not possible at this time to speak of the present exhibit in detail. An official report will be submitted by the chairman of the committee at a later date. Brief mention should be made, however, of the admirable work accomplished by the committee. Although not so extensive as that at St. Paul, the present exhibit has enlarged along important lines inaugurated a year ago. Especially is this true of the research and physiologic exhibits in which a very creditable showing has been made.

To describe accurately the St. Paul exhibit would require a volume. One might easily have spent the entire time of the meeting in the inspection of the 2,100 specimens. The room occupied by the collection was 75x75 feet, lighted well on two sides, but unfortunately most inconvenient of access. Consequently the attendance, although large, was not what the excellence of the exhibit warranted.

Four medical societies, nine medical colleges and universities, ten hospitals and museums of national prominence contributed. There were in addition six large private collections.

Although the assembling of such a magnificent array of material was an achievement over which the committee felicitated themselves, I am free to confess that the magnitude of the collection was a hindrance to its greatest usefulness. Careful observers must have been impressed that only casual and superficial inspection of the specimens was possible. It was found entirely out of the question to secure a sufficient number of competent persons to demonstrate the specimens. Hence a large quantity of valuable material stood on the shelves unseen and impotent for educational advancement—the prime end sought.

In the further evolution of the pathologic exhibit of the American Medical Association, a wider sphere of usefulness will be opened up if the name be changed to Scientific Exhibit. This would insure greater range of scientific demonstrations, and enlist more general cooperation on the part of members. It should be made plain that the exhibit belongs to the whole Association. Further gain will be made if the exhibit be placed in entire charge of a director, who should be chosen by the board of trustees and receive a fair salary for the labor performed. In his hands should be placed funds for the encouragement of research and experimental work. Let the exhibit become the arena in which the investigator demonstrates to his co-workers the proofs of original work. Papers and reports are valuable in their way, but "seeing is believing." What in this way can be made plain to many competent witnesses will be spared the innuendos of skepticism and receive just recognition promptly.

The secretaries of the various sections of the Association should constitute an advisory committee to the director of the Scientific Exhibit. It would thus be possible in the preparation of the annual program to develop a co-relation between the work of the sections and that of the exhibit. Subjects of unusual interest in the sections might be illuminated by groups of specimens in the exhibit. A competent director would thus be able to render valuable assistance to clinicians as well as to those carrying on research work. It would further be the duty of the director to see that carefully prepared data were submitted with specimens and demonstrations; it would fall to him also to edit the same for publication and preservation in the archives of the Association. His energies would also be directed toward the establishment of a medical museum—a lasting monument to the work of the Association. Beside scientific exhibits it would also properly contain historical exhibits connected with the progress of medical science, especially in the United States. Under efficient direction such an institution would develop surprisingly. In a few years a commodious habitation would be necessary, but the growing wealth of the Association could easily manage that.

Future tendencies should be to condense and specialize the exhibit. It should be sought to illuminate certain phases of pathology. These might be varied from year to year according to tendencies in the medical world. The last exhibit was too cumbersome for systematic demonstration. The heterogeneous character of the material also militated against this end. With a collection half the size and specimens selected with a view to illustrating certain phases of pathology, demonstration of the exhibit would have been possible. Indefinitely greater would have been the advantages derived by visitors to the collection.

The Scientific Exhibit is in harmony with the spirit of the age which demands brevity; calls for facts rather than theories and deeds rather than words. Whether a specimen be presented in the exhibit of the American Medical Association, in the state medical society or in a county medical society the practical lesson taught and benefits derived are the same. Summed up, it is that a practical knowledge of gross pathology constitutes the most substantial basis for skill in diagnosis. The physician reading a paper, reporting a case or presenting a specimen is, to be sure, rendering a service to his colleagues. He confers on himself a much greater benefit. The knowledge begotten in the labor becomes a joy and a blessing to him like his own child.

The suggestion made at the meeting a year ago, that this be designated the "Section on Experimental Medicine," has suggested some observations. The dominant sentiment of the membership, no doubt, is that the work of the section should be directed along purely scientific lines, leaving all questions pertaining to the practice of medicine and surgery to other sections. There is not wanting ground to question the wisdom of such a course. In a section composed exclusively of specialists in pathology and physiology, may it not be that the good seed brought here will fail to be sown on the fertile practical fields of medicine, where it will best thrive and bring forth a bounteous harvest. Pathology and physiology

touch every practical branch of medicine in an intimate and fundamental way. This section possesses strong natural relationships and obligations to every other section. Every other section should receive from that on Pathology scientific light for guidance in the practice of the profession of medicine. Already, in this great Association, the rays of intense common interest have been focused on the Scientific Exhibit. It is becoming a luminous power for the dissemination of knowledge among the membership of the organization generally. In like manner this section should attract the progressive spirits from other sections, and so make itself felt through the strong arms of the Association.

Most deplorable, indeed, are the antagonisms prominently manifested now and then between pathologist and practitioner—to their mutual discredit and the hindrance of true scientific progress. A distinguished surgeon boldly denies that blood examinations, showing leucocytosis, are of value in determining the approach of suppuration. An eminent gynecologist asserts, with almost scornful emphasis, that the pathologist's report on uterine scrapings is valueless in the diagnosis of malignancy. These are but two instances of many which might be cited of eminent, aggressive and influential members of the profession harboring views which are erroneous and pernicious in their influence on the progress of medical science. They arise from failure to appreciate the true sphere of the pathologist as related to the clinician. Overmuch is expected of the pathologist. Improvements in the microscope and other instruments and means of precision in diagnosis have led to an exaggerated conception in the inexperienced professional mind of what they will reveal. Every pathologist of wide experience has often encountered the intelligent practitioner, untrained in microscopy, who, having failed by every other means at command to diagnose his case, now comes with assurance for its final and absolute settlement by the microscope.

Pathologic diagnosis has its limitations, and none appreciates this more than pathologists themselves. Pathologists are fallible, just as clinicians are fallible. What with numerous fledglings and the extreme difficulties of differentiation and pathologic diagnosis, errors are common enough. There is no intention to shield the errors of embryonic pretenders or the extreme claims of the pathologic sensationalist. Rare and yet to be found in our ranks are the conscienceless quack with beautiful drawings, fine phrasing and padded reports, as well as the crank and visionnaire, with his faulty judgments. It will be too much to hope that such will not find their way into the section. Most certain is it that there will be present in the membership more than a saving remnant of the elect of science, who will separate the wheat from the chaff, and strive always toward true and high ideals.

This section of the most powerful organized medical body in the United States should not only seek to preserve its scientific dignity and morale, but undertake the inauguration of practical reforms. It is within our province and becomes a duty to strive for the banishment of the antagonisms hinted at. Toward the accomplishment of so laudable an end the section officers should secure from eminent practitioners in the various sections occasional papers on practical topics with pathologic bearing. Contact of the man of pure science with him who applies scientific knowledge to practice, will tend to prevent narrowness and antagonisms on the one hand, and on the other prove conducive to harmony and mutual upbuilding. The mission of the physician is to minister to the suffering and heal the sick. Of this cardinal fact we as scientists should not lose sight. And on the part of clinicians there is need of appreciating more fully the great assistance afforded them by a practical knowledge of pathology and physiology. The great Virchow understood well the practical bearing of these subjects, when in a communication to the author concerning the Pathologic Exhibit he wrote: "I hope your countrymen will recognize the intimate relationship of a practical knowledge of pathology, not only to expert diagnosis, but also to successful treatment."

THE YEAR'S PROGRESS IN THERAPY.

CHAIRMAN'S ADDRESS, DELIVERED BEFORE THE SECTION ON MATERIA MEDICA, PHARMACY AND THERAPEUTICS, AT THE FIFTY-THIRD ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, AT SARATOGA SPRINGS, N. Y., JUNE 10-13, 1902.

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The progress of therapeutics, materia medica and pharmacy during the past year has been neither startling nor specially important. The chief advances that have been made are based on the more stable ground of pharmaco-physiology, pharmacology and experimental medicine, rather than on any alleged specific therapeusis.

THE LOEB RESEARCHES.

One of the most prominent pharmaco-physiologic suggestions of the year has been Jacques Loeb's application of the physico-chemic notions of Arrhenius, Van t'Hoff and Oswald to pharmaco-physiology. If, as Arrhenius claims, it is the ion or chemical atom bearing its charge of electricity that acts, instead of the atom alone, and if this be the most potent factor in biologic processes, probably some type of electric energy can so modify physiologic forces as to act as an alterative in disturbed metabolism. This, however, is but a link in the chain of phenomena presented by cataphoresis showing that biologic forces are subject to the same laws as the ordinary physical forces. The experiments of the older physiologists show, however, that while analogous, heat, light and electricity differ in the character of their waves from the comparatively slow vital forces. The chemic forces, however, are nearer akin to the vital than the physical forces. Moreover, many of the vital effects attributed to electricity are due to the secondary chemic forces set in action by it. This was the opinion of the older physiologists, and has been lately corroborated by experiments of F. R. Zeit on the effect of electricity on bacteria, recently reported to the Chicago Academy of Medicine. The action of electricity as a primary force is coarser and more destructive than the chemic forces produced through such action. In dealing, therefore, with the influence of the ions, the acceptance of the old, crude notion of electric action is liable to result in error. Indeed, its assumed effect is in direct contradiction to the progress of evolution, which proceeds from the incoherent simple to the coherent complex with loss of explosive power. That there is an alterative action in light is evident, not only from the phenomena of photography, but also from the alterative action of the *x*-ray shown in *x*-ray dermatitis, as well as in its effect on cancer. This dermatitis belongs to the category of the dystrophic dermato-neuroses and not to that of the simple burn. Hence it is an expres-

sion of disturbed metabolism. The relation of the *x*-ray to static electricity illustrates how far electric action must proceed before it can be expressed as a biologic alterative. The experiments of Jacques Loeb (which have been cited as illustrating the identity of electricity and life) are simply one phase further in the demonstration of the value of the ovum in the production of life. All ova have a parthenogenetic tendency, which, as Boveri demonstrated at the last meeting of the German Society of Naturalists and Physicians, disappears through degeneration of the centrosoma. All that Loeb did was to show that this parthenogenetic tendency could be stimulated in sea-urchins by a normal salt solution. In certain infusoria the process of fecundation consists essentially in a subtle osmosis between the sexes. The experiments of Loeb did not create life, but simply stimulated bisexual generation at the expense of parthenogenesis. These experiments, therefore, demonstrate nothing as regards therapeusis.

There has been so much importance attached to the necessity of "bleeding into one's own veins" by agents which do not depress the heart that it is not surprising that this procedure should have been quite universally accepted and without question. Critical analysis, however, of the untoward effects of the agents employed demonstrates that their effects were produced through undue strain on the heart. Recent researches have shown that this undue strain leads to even greater cardiac weakness after pneumonia (in which these drugs usually were employed) than in cases of venesection. This is hardly surprising, since venesection would not have the local disturbing influences which the agents already described must have had. Their results again demonstrate the evil effects which half truths so often have exerted on therapeutics.

AUTOINTOXICATIONS.

Developments along the lines of autointoxication and the toxins have been a fertile source of therapeutic suggestion. The fact that delirium tremens is a toxic state, due to alcoholic saturation, with possible autotoxic results through interference with hepatic and renal functions, has led to a successful revival of the older system of treatment, which is practically venesection combined with an attempt to replace the serum of the blood by hypodermoclysis with normal salt solution. It is generally forgotten that the venesectionists of the centuries prior to the nineteenth endeavored to draw toxic substances from the system and introduce watery solutions of various kinds. Salt solutions were among those thus employed and were evidently suggested by the mingled success and failure of the operation of transfusion. Early in the clinical history of cholera it was found that one serious cause of collapse was reduction of the serum of the blood with consequent toxic results. Attempts to replace this by transfusion, while giving markedly good results, produced what were evidently thrombotic and embolic conditions. The replacement of blood by salt solutions had greater though more transient results. The effect produced by these during the first three decades of the nineteenth century are well described in the comments of the *Medical Magazine* of 1833. It remarks that "the warmth, activity and intelligence of health have been restored to bodies which a few minutes before were almost as . . . and ghastly as the tenants of the grave, and ease and even hilarity have been substituted for the mute and paralyzing agony of collapse. It has been shown that upwards of a gallon of saline injection may be introduced into the blood vessels in course of an hour without producing death or occasioning any disease."

The theory on which the saline injection was then used is thus given by Dr. Latta of Leith, Scotland, who was prominent in the advocacy of saline injections during the cholera epidemic of 1830. To continue the quotation: "The individuals most liable to cholera are those whose diet and habit of life are very apt to derange the function of the liver. The nature of the hepatic circulation is such as must render it very susceptible of obstruction when the blood is reduced to a viscid state by abstraction of blood serum and the nervous energy be blunted by the influence of any sedative. Hepatic obstruction prevents return of the blood from the bowels, producing the usual consequences of obstructed circulation—the effusion of serum. In other parts of the body the blood returns to the heart, flowing from branches to trunks, and when it reaches the center of circulation, it thickened from the draining effects of diarrhea. it collects as soon as the saline fluid is introduced along the veins, and then directly mixed with blood, free circulation is restored and congestion is removed from every viscus except the liver. There the circulation is widely different, the thick grumous blood gorges its venous ramifications and the obstruction thus produced must continue until by slow degrees it is penetrated by the more fluent circulating mass. Until this is accomplished diarrhea must continue. The symptoms of its restoration are cessation of the serous diarrhea and return of the biliary secretions." It must be remembered that this was written sixty years ago, yet in no small degree it anticipates the doctrine on which modern hypodermoclysis has been based. This method has all the advantages of venous injection without its dangers. On a theory very similar to that of Dr. Latta, Dr. Hopkins employed hypodermoclysis with marked success in the treatment of delirium tremens. The beneficial results thus obtained suggest its employment in the allied psychic states of the confusional insanities, which, whatever be the primary cause, are based on toxemic conditions. The furibund pathologic change in typhomania (the acute delirium of the Germans, French, Italians, Scandinavians and Russians, the delirium gravis of American authors and the Bell's disease of some alienists) forbids much hope of success from its use. The acute confusional insanities proper, however, present a most encouraging field for hypodermoclysis on the principles outlined by Hopkins.

SEROTHERAPY.

The theory of modifying the serum of the blood by remedies is an old one, and there have been two striking applications of this principle to serotherapy in modern therapeutics. One proposes to destroy the toxalbumins by sodium hyposulphite. This principle is an old one, but has failed because of improper methods of introducing the remedy. The modern methods are no more efficacious nor are they attended with less danger than the old.

Diabetes not unnaturally has some relation to sugar formation in the blood serum, and attractive therapeutic hypothesis based on this idea would strike the diabetic and acidiosic conditions as their fountain head by leading to sugar destruction in the blood itself. Trypsin, as Croftan has lately shown, has this faculty, and to some extent when normally formed in the body exercises an influence on sugar change. Croftan's attempts to control artificial glycosuria in animals by trypsin have proven, however, as he admits, rather disastrous. The

results in this phase of serotherapy have been so far merely suggestive rather than of actual therapeutic value.

The fact that toxins were met in the system by antitoxins and the advantage taken of this fact in the treatment of diphtheria has naturally led to the study of the relations of autotoxic states to antitoxins. The studies of the relation of immunization of certain venom to antitoxins have not unnaturally stimulated medical research as to the relationships of serum therapy to the nervous results of autointoxication. Epilepsy is admitted by the vast majority of neurologists to consist of a deficient motor inhibitory system and an autotoxemic exciting factor. Nearly thirty years ago Meynert claimed that behind the status epilepticus was the accumulation of a proteid toxic substance. The presence of this substance has of late been demonstrated beyond a doubt by urologic research. Accepting the principle of the relationship of the autotoxic substances to the autotoxic states Ceni has brought forward a number of very carefully conducted researches tending to show the influence of a specially devised serum on epilepsy. The results he has obtained undoubtedly favor the opinion that the principle is correct. The beneficial results of serum therapy in epilepsy are also evidence in this direction. The fact, however, must be remembered that too short a time has elapsed to accept the favorable results as permanent (considering that epilepsy always yields temporarily to every new treatment). There is very little doubt, however, that hematologic studies here, as elsewhere in disease, will be productive of results of great therapeutic value.

PHARMACOPEIAL IMPROVEMENTS.

The coming edition of the pharmacopeia will present features aligning it more with scientific therapy than has been the case in the past. The study of ointments from the standpoint of their therapeutic employment rather than their simple pharmacy is a step in the right direction. The pharmacopeia has hitherto, in its preparation, been swayed too much by pharmacal rather than by therapeutic requirements. The pendulum is now swinging in the right direction to the advantage of both pharmacists and physicians.

The recent investigations of Werthin of Ann Arbor and others on the hemolymph glands furnish a new suggestion along the line of chronic anemias, whether of malarial or other toxic states. The researches of Werthin have been somewhat modified by those of Morandi and Sisto, but their results are simply negative and not destructive of the position that under morbid conditions the hemolymph glands undoubtedly take on blood-forming functions. The discovery of the normal presence of arsenic in the thyroid has led to the addition of arsenic to thyroid powder in obesity and other conditions treated by thyroids. The organic salts of mercury are receiving considerable attention in the treatment of syphilis, the lactate being one of the latest developments of this line of research. The organic silver salts are likewise having their field of operation extended.

INVESTIGATIONS OF BLACK WATER FEVER.

The therapeutic relations of black water fever have been an interesting subject of discussion for the last decade and a half. The disease occurs all over the malarial belt, and in the southern United States has been considered an expression of malaria very frequently produced by the abuse of quinin. There is no doubt but that quinin sometimes produces, as Lewin long ago showed, hematuria without the existence of malaria. The observations of southern physicians found in the literature of a decade ago showed that abstinence from excessive quininization during hematuria reduced the bladder and kidney disturbance. Dr. E. H. Martin of Greengrove, Miss., pointed out ten years ago that in the treatment of malarial hematuria the urine must be cleansed preferably with turpentine and the bowels kept open preferably with the salines. For the malarial poison he preferred arsenic. Under quinin malarial hematuria is a terrible condition with a great mortality, frequent relapses, profound exhaustion and slow, protracted convalescence. Without quinin a much more favorable termination may be hoped for.

The researches of Koch and others on the African black water fever tended to corroborate Dr. Martin. Recently O'Sullivan Beare and others have demonstrated clinical phenomena tending to separate black water fever from ordinary malaria and charging much the same factors with its production as did Dr. Martin and other southern physicians ten years ago. O'Sullivan Beare has found that the fluid extract of *Cassia bergans* in doses of a fluid dram every two hours gives remarkable results in this disease. The value of therapeutic diagnosis has been singularly well illustrated in the distinction drawn between black water fever and malarial conditions.

The recent discussions of the cumulative effects of borax ignore the researches of Lewin, Folsome and others in the employment of this drug in epilepsy. Their observations show that borax has cumulative action when given in small quantities and long continued. These untoward effects are especially manifested on the gastro-intestinal canal, liver, kidneys and skin. They were so marked in the case of epileptics that the use of borax has been abandoned in consequence.

THE VALUE OF MATERIA MEDICA AND THERAPEUTICS.

The outline of pharmacy, materia medica and therapeutics just given has been intended to suggest that—in spite of the opinion of surgeons to the contrary—there has been regular progress in these sciences and, through their bearings on the great questions of anesthesia and asepsis, surgery has profited even more than medicine in the past, and seems likely to profit equally in the future. Medicine can succeed only as a unit, and surgery without medicine falls back into the hands of the victims of prurigo secundi, a disease no less prevalent now than when Verneuil called attention to it over twenty years ago.

Not only do many surgeons ignore the value of materia medica and therapeutics, but there can be found many medical men who advocate the abolition of the subject in medical colleges and the abolishment of the Section of Materia Medica, Pharmacy and Therapeutics in the American Medical Association. By rejecting therapeutics "the physician is nothing more than a useless naturalist," said Latour, "passing his life in discovering, classifying and describing human diseases. It is therapeutics which elevates and ennobles our art; it alone gives it an object; and I may add that by it alone can this art become a science."

What honest and unprejudiced physician can deny the value of the antitoxins, thyroid and suprarenal extracts, or the value of mercury, iodin, opium, arsenic, ergot, digitalis and strychnin, and of the anesthetics, antiseptics, antipyretics and hypnotics?

We know that such drugs as chloral, belladonna, physostigma, and nux vomica act on the tissues of certain parts of the brain and spinal cord, and thereby in-

crease or decrease the functions of those parts. We can depress the functions of the motor nerve endings with conin, and the sensory nerve endings with aconite. We can paralyze the involuntary muscle fibers directly with the nitrites, or indirectly by chloral hydrate, which depresses the functions of the vasomotor center. We can stimulate or depress the functions of cardiac muscle and dilate or contract the blood vessels. The tissues of the various glands may likewise be stimulated or depressed. We can improve the nutrition and therefore the function of almost all the tissues by iron, cod-liver oil and lime; and indirectly we can produce the same effect by the gastric tonics and digestives which promote the taking and absorption of food.

Dr. Albert Abrams, in a paper entitled "The Employment of Drugs in Diagnosis," alludes to the administration of certain drugs as a means of diagnosis. Amyl nitrite, for instance, relieves anemic headaches and intensifies those of hyperemic origin. Migraine of spastic origin is relieved, whereas paralytic migraine is aggravated. He claims that the phenomena of auscultation are in many instances brought out after inhalation of amyl nitrite. The antitoxins are of value as a means of diagnosis in diphtheria, cryptogenetic septicemia, hydrophobia, etc. Anesthetics are invaluable often in the examination of joints and to determine whether tumors, contractures, etc., are due to hysteria. Arsenic is of value in aiding a physician in the diagnosis of many neuroses. It is also an efficient aid in excluding tuberculous adenitis from Hodgkin's disease.

The diagnostic value of atropin in ophthalmic medicine is well known; colchicum in gout; potassium iodid in neuralgias, ulcerations, paralysis, etc., of suspected syphilitic origin, intoxication from mercury, lead, zinc, etc., and in actinomycosis; quinin in intermittent fever; salicylic acid in atypical manifestations of presumable rheumatic origin; salol for determining the motor activity of the stomach. Thyroid feeding constitutes an invaluable diagnostic means in the recognition of all cases of myxedema, whether the disease be the true form, sporadic cretinism or cachexia strumipriva. Thymol is especially destructive to the parasite of ankylostomiasis and is of undoubted value both as a means of diagnosis and cure.

Therapeutics implies more than the mere administration and local application of drugs. Climate and artificial aëro-therapeutics or medicated atmospheres are often important adjuncts in the treatment of disease. Balneology and hydrotherapeutics are immensely important and are increasing in popularity, and deservedly so. This subject alone requires our most careful thought and investigation. It is wonderful what results may be obtained by the proper use of water externally or internally, or both.

Equally important are the medical applications of electricity. No less an authority than H. Lewis Jones says there is no manner of doubt that electrical currents produce definite physiologic effects. The most obvious physiologic action of electricity is its power of stimulating living tissues. The metabolic activity of the tissues can be considerably increased by electricity, as Gautier and Larat have shown in their experiments on the elimination of carbonic acid gas and urea under electrical treatment, when it was found that an increase of 40 or 50 per cent. could be produced by general electrification.

Massage or "mechano-therapy" is another invaluable means of treating many diseases, particularly when applied by an expert. The practice of massage by people quite ignorant of medicine, certainly with no scientific training, and independent of proper diagnosis and directions from a physician, is altogether to be deprecated, and is one of the great sources of the prejudice against the method still existing in the minds of medical men.

I must not fail to mention "suggestive therapeutics." The fact that the condition of many patients is influenced favorably or otherwise by their mental condition is well known. Drugs are not all that is necessary in the treatment of disease, and one is a very narrow therapist indeed who seeks for no means of relief outside of a drug store. There are limits to the utility of drugs, and the want of belief in them is largely due to the fact that they are expected to achieve the impossible.

THE FUTURE OF THERAPEUTICS.

I believe with Brunton that the prospects of therapeutics are very bright. "I think it is highly probable," says Brunton, "that before long we shall have a series of drugs which will stimulate the biliary secretion of the liver or modify its glycogenic function, arranged in order of their comparative strength, in much the same way we now have the class of antipyretics. We may also fairly expect to obtain a series of remedies which will act on the spinal cord in such a way as to enable us to treat a number of diseases which are at present altogether beyond the reach of our remedies."

The grandest principles that challenge human investigation center round the subject of therapeutics. Let us master every phase of it, that we may be better enabled to relieve our suffering patients. It is to be hoped that the therapeutic researches of the present generation will be followed by yet more brilliant achievement and by its light the darkness of passing illusions be happily dispelled.

Original Articles.

CARDIAC STIMULANTS.*

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The group of drugs which in therapeutic nomenclature is included under the head of cardiac stimulants or cardiac tonics—the so-called digitalis group—has not yet, as applied to the treatment of cardiopathic states, been displaced by hydrotherapeutic, aërotherapeutic or mechanical therapeutic measures, efficient as these latter means may be. The great practical, as well as therapeutic interest, attached to this oft-discussed group of drugs is sufficient excuse for their present consideration to which this paper is limited. In this connection the terms tonic and stimulant have acquired a synonymous usage, a custom not strictly to be commended, because, while the principal cardiac stimulants have also tonic properties, and may correctly be so employed, there are certain well-recognized cardiac tonics, such as the iodids, which are not available for stimulant purposes. Again, the chief clinical application of this group of drugs is for the purpose of stimulating an incompetent heart. That these drugs exert a tonic effect at the same time is not forgotten; indeed, such an effect is postulated by efficient stimulation, but the former effect is incidental and secondary to the latter in the absence of which is not obtainable at first. Our dosage in the presence of evidence of failing muscle power, is

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based on the stimulant properties of these drugs. The term stimulant, therefore, appears proper in this connection.

The one indication for the employment of this class of drugs is insufficiency of the heart muscle—a minus dynamic force with reference to the demand. The efficiency of these drugs may be modified by the nature of the specific cause of the insufficiency, which in certain instances may contraindicate certain members of this group. A relative insufficiency depending on increase in exocardial resistance does not necessarily indicate this group of remedies, or, if so, only in connection with agents which remove such peripheral resistance to blood movement. In some instances the latter agents are all that is necessary to allow the heart to perform its work, as was the case with a patient in whom considerable dropsy of the limbs and congestive enlargement of the liver were removed by five drops of tincture of opium thrice daily. In these cases such true cardiac tonics as strychnia or the iodids have their proper application.

It is not necessary at this time to discuss the physiologic action or the toxicology of these medicaments. The practical questions are, when and how to give them, and when to stop them. In some instances the latter question is more difficult to decide than the former, and imperfect results are often more due to faulty judgment on this question than to indecision on the others. The principles which govern the employment of the chief of this group—digitalis—also apply, with individual modifications, to the entire group.

DIGITALIS.

Digitalis easily maintains its position as the chief cardiac stimulant for general efficiency, reliability, and, numerically speaking, applicability. The indications and contraindications for its use have always been more or less in dispute, and probably will always constitute points of controversy. The limitation of Porter, who says that digitalis is useful only in lesions of the mitral valve, and there only for a short time, is too narrow. On the other hand, we may agree with Bartholow that the doctrine that digitalis is suitable for all kinds of weak heart is fallacious. Abstractly, the statement of Washburn, that broken compensation always demands digitalis, may be accepted in the sense that the one indication of its employment is dynamic insufficiency of the heart muscle without reference to the nature of the valvular lesion or other cause for such insufficiency. Practically, however, we find that individual causes of this insufficiency may so modify the effects of digitalis as to constitute a contraindication to its use. It is not necessary to say here that the mere presence of a murmur constitutes no evidence for or against the administration of digitalis, however frequently such evidence has been accepted. The real question rests on the inability of the heart muscle with respect to the presence or absence of features contraindicating digitalis. These features contraindicating digitalis may be due to intrinsic cardiac conditions, or may arise from causes exocardial in nature.

The cardiac conditions which may contraindicate digitalis are certain mechanical conditions of the heart, arising in consequence of valvular lesions, which operate as contraindications, even though the muscle may respond to the action of digitalis, also advanced degrees of myocardial changes. In the first class comes marked mitral stenosis, extensive aortic regurgitation and excessive degrees of aortic stenosis. Pronounced stenosis of the mitral opening contraindicates digitalis because of the overdistention of the left auricle during the longer diastole and, if the heart is slowed too much, the danger of the high pulmonary pressure causing pulmonary edema. Ewart points out that the drug should be at once suspended in these cases when the pulse slows down to 85 per minute, and that the rapid, irregular heart of these uncompensated cases is less likely to be mistaken for cumulative drug action because its danger comes at an early period from undue slowing of the heart.

Some cases of moderate stenosis, though, perhaps, with loud murmur, and many cases of double mitral lesion respond to digitalis better than to any other cardiac stimulant. The presence of mitral regurgitation is practical assurance of the safety of digitalis in cases with stenosis, while its absence should indicate caution in the use of the drug because of the danger of increasing too much the pressure behind an obstruction which does not lessen, and in a cavity whose walls have little resistance. According to Sansom, digitalis is often harmful in mitral stenosis by increasing ventricular action, which is not necessary on the left side, and results in overstretching of the right ventricle.

Aortic disease has been largely regarded as a contraindication for digitalis, especially regurgitation. According to Potain the latter condition is a contraindication unless the pulse is rapid. Peacocke states that digitalis is useful in uncomplicated aortic stenosis, and is generally indicated in double aortic disease, though there may be sudden syncope. The alleged pernicious effect on the left ventricle of prolongation of the diastole has been the basis of the complaint against digitalis in aortic regurgitation. Corrigan discouraged its use in his original memoir, and was followed by Fothergill and others. That this view as a generalization was not well taken is shown by the opinion of later authorities, such as Balfour, who says that digitalis or its congeners is imperatively demanded in failures from aortic incompetence, or of Broadbent, who says that the aortic cases with mitral symptoms should be treated as mitral cases. Washburn's approval is endorsed by Ewart with reservations, anginal pain being the main indication for its avoidance. He thinks digitalis dangerous in marked degrees of aortic stenosis except when there is acute dilatation with rapid running pulse. Groedel says that there is no indication that digitalis should be excepted in a whole class of valvular diseases, such as the stenotic lesions of the aortic opening.

When we consider the direct nature of the pressure in the left ventricle and its mechanical effects in aortic lesions, especially regurgitation in which dilatation is primary and progressive, it is not surprising that digitalis should be on the whole less effective than in mitral lesions. In the earlier stages of aortic lesions, when the heart muscle has stretched but is not markedly degenerated, we obtain relatively as good results from digitalis as in other lesions, but in later stages, when the muscle has degenerated as a result of imperfect nutrition, it is not reasonable to expect such results. We must remember that the hyposystolic period of aortic lesions, the period of the passive congestions that are so generally recognized as clinical evidence of the demand for digitalis, do not, as a rule, present until the heart muscle has undergone these degenerative changes to an extent sufficient to allow of stretching the mitral ring. If the drug fails here it is to be charged against the myocardial degeneration. And yet, even here we often have marked results which, unfortunately, are too

often but temporary because of imperfect coronary blood supply from imperfect filling of the aorta in the one case and too rapid emptying in the other. It is usually necessary to give relatively larger doses of digitalis in aortic regurgitation to produce effects, but the pulse reduction can not be safely carried to the same extent as in mitral lesions.

Acute myocardial inflammation, as a rule, contraindicates digitalis, always if extensive. According to Thompson, digitalis is absolutely excluded in acute degenerations of the heart. In many cases, however, of endomyocarditis of rheumatic origin digitalis, in suitable doses, may be of considerable service.

Chronic myocardial inflammations and degenerations present the most difficult class of cases in which to determine the eligibility of digitalis. The difficulty of distinguishing clinically between interstitial, granular and fatty changes is recognized by all clinicians and by some the differentiation is considered impossible. We are often obliged to adopt Huchard's plan of feeling our way with digitalis, even though we are inclined to be positive in our diagnosis. It is in this class of cases that various subjective as well as objective signs obtain a value as contraindications for the use of digitalis in vitium cordis of indefinite clinical outline. Potain says that myocardial lesions strongly contraindicate digitalis; that it may be dangerous, and that senile cachexia and fatty degeneration call for great care in using digitalis. On the other hand, Beates insists on the value of digitalis in the cardiac lesions of senility. Groedel says continuous small doses of digitalis are of use in slight fatty degeneration from alcohol and tobacco.

The presence of such extrinsic causes of relative or actual cardiac incompetence as atheroma, sclerosis of the vessels, or arterial spasm are by many regarded as contraindications for digitalis. Undoubtedly this is often correct, and yet if the heart be actually incompetent, even though it be through degenerative changes in the heart muscle, much good may be obtained by the careful exhibition of the drug. The argument is advanced that if the muscle has sustained degenerative changes how can it be expected to respond to the stimulating effect of digitalis? Very true, and yet we expect and obtain good results from strychnia and the iodids. Now if the circulation in and the nutrition of the muscle is good enough to respond to the tonic action of these remedies it will also respond to and be benefited by the action of digitalis, provided the latter be administered with due regard to the conditions present and its action be guarded by proper regulation of its action on the vessels. Clinically we often obtain remarkable results in cases where we have reason to expect failure, judging from our estimate of the heart muscle, and so one becomes impressed with the extreme difficulty of estimating the integrity of the muscle and the results to be obtained.

The large class of so-called muscular mitral insufficiencies are often much benefited by small and continued doses of digitalis in conjunction with strychnia and the iodids, and the action of the latter remedies are thus much enhanced, the above objection as urged by many to the contrary notwithstanding. Digitalis is of special adaptability in these cases because of the convenience of administration, the lack of stomach disturbance and the ease with which it may be administered in connection with vaso-dilators, cholagogues or laxatives. The doses of digitalis advocated by Beates in senile cardiac lesions present a startling contrast to the conservatism with which digitalis is administered by those who have less faith in its utility and who emphasize its dangers. He recommends 1/10 to ½ grain from 3 to 6 times daily if necessary, and, if dissolution threatens, ½ grain by hypodermic, repeated in an hour, and then ¼ grain by mouth every 2 hours till 2 grains are given. He claims that the blood tension is lowered rather than increased; that it can not be increased when the propelling function of the arteries is lessened, and that increased tension in old people does not contraindicate heart stimulants.

Recently, when recommending ⅛ grain of digitalis every 6 hours for a man 76 years old, I was asked by the attending physician to assume the entire responsibility of so doing. A few days later I found him assuming the entire responsibility of giving the same dose to the same patient every 4 hours.

When exocardial resistance to the circulation from general vascular disease is marked it has been generally accepted as contraindicating digitalis. Bartholow's statement that digitalis is justified when arterial tension is low may be taken as supporting this view. The same view is variously stated by many observers. Arteriosclerosis is not confined to the aged, is not always a general process, and the tension is not always increased. The heart may or may not be directly concerned in the general vascular changes, hence its incompetence may be actual or relative. In the latter instance the vaso-dilating remedies—the hypotensive medication of Huchard—have their most successful application. In the former instance a combination of this form of medication with heart tonics and probably stimulants is necessary. Digitalis as a vaso-constricting cardiac stimulant has been much objected to in this connection. If, however, degenerative changes in the heart have not progressed too far, digitalis combined with vaso-dilators is not only safe in most cases of vascular disease, but is markedly efficient. The best dilators are opium, nitrite of sodium and nitroglycerin. The latter is best for marked cases of vascular sclerosis with increased tension. Its fault is rapid and transitory action, developed in about twenty minutes and lasting about one hour and a half. Its administration in connection with digitalis should be delayed about three-quarters of an hour. Opium is an ideal dilator as regards reliability, length of action and adjustment of effects, but in many cases has its objections. Nitrite of sodium is reliable and without objection in this class of cases, barring individual susceptibilities. The relative quantities necessary to affect the vascular action of a dose of any preparation of digitalis equal to from 10 to 15 drops of the tincture would be, in the average case, of opium, 1/3 grain of powdered opium, from 3 to 5 drops of tincture, or 1/16 of a grain of morphia; of sodium nitrite, from 3 to 5 grains; of trinitin, from 1/200 to 1/100 of a grain.

In some instances other members of the group of cardiac stimulants will give better results in cardiac inability associated with vascular disease than will digitalis because of difficulty in modifying the vascular effect of the latter, or because it is not well borne by the stomach.

General symptoms contraindicating digitalis or indicating its suspension are, according to Potain, nocturnal delirium, pallor, cold extremities, trembling, and contracted pupils. Generally we find that intolerance of digitalis, or too large dosage, is manifested by sensations of oppression or disturbance about the pre-

cordium, dizziness, faintness, and, at times, irregular heart action.

The cumulative action of digitalis has long been a bugbear to its administration. Personally, I have never observed it, and I have been in the habit of giving moderate doses of the drug for from four to six weeks without interruption. Porter claims that cumulative effects result from interference with nutrition from the constricting action of digitalis on the arterioles. If so, the effective combination with vaso-dilators might tend to restrict cumulative effects. I have regarded these effects as the result of improperly selected cases or to faulty methods of administration. MacLaren thinks the toxic effect of digitalis is overestimated.

The best preparations of digitalis are the infusion made from the fresh English leaf, the tincture made from an assayed drug (Squibb's) and a reliable digitalin—such as Merck's digitalinum Germanicum. According to Arnold and Wood the latter preparation is stable and 1 grain equals 70 c.c. of the tincture of digitalis. Digitoxin is the most active as well as the most poisonous element of digitalis. Solomon says digitoxin is the chief ingredient of the leaves, is superior to digitalis as a diuretic and is more prompt and certain in its action in doses of from 1/1000 to 1/250 of a grain. Zeltner believes digitoxin to act better in primary cardiac disease and in secondary disease from emphysema and nephritis than digitalis leaves. He advises its administration by mouth, hypodermically, and by the rectum, and says there is no more danger from disturbance of the stomach or from poisoning than from digitalis. The latter part of this assertion certainly can not be accepted at present.

Digitalin (Merck) is a safe, reliable and eligible preparation. Providing its dose is properly adjusted and vascular effects properly controlled, its effects on the heart can not be excelled by other preparations of digitalis or equaled by other cardiac stimulants. Imperfect effects are generally due to too small dosage. From 1/12 to 1/8 of a grain represent, in the average case, a dose of from 10 to 12 drops of a reliable tincture. The extremes of life do not present the same susceptibility to digitalis that we are accustomed to allow for with other drugs. Jacobi has pointed out that children bear digitalis better and in comparative larger doses than adults. His allowances are: for an infant of one month, 1/10 adult dose; 6 months, 1/5; second year, 2/5; 4 to 14 years, 7/10. Early adult life generally presents more or less marked susceptibility to the action of digitalis. Old age requires practically as large a dose as maturity.

Continued administration of moderate doses of digitalis for periods of from three to four weeks, followed by interruption for like or lesser periods in order to obtain the full tonic possibilities of the drug, is a method whose value is generally underestimated, but properly carried out the asystolic period of chronic cardiopathies may be often considerably postponed. Groedel says that digitalis does not lose its effect by continuous use, and is useful in continuous small doses in heart lesions from overexertion. This method of using digitalis is particularly applicable in senile cardiopathies.

STROPHANTHUS.

Strophanthus, while a heart stimulant of value, is not to be depended on, in the presence of marked muscular failure, to the same extent as digitalis. It is valuable in regulating functional ataxia, or that due to mild degrees of muscular insufficiency. Its special clinical application is in relation to the latter condition in association with mitral stenosis. Here it is both safer and more efficient than digitalis except when there is dilatation of the right ventricle. Aside from a tendency to produce gastric disturbance it is well borne at all ages. The dose of the tincture (P. D. & Co.'s) is from 8 to 12 drops. It is best given in laurel-cherry water.

Fraser stated that strophanthus acted mainly on the heart and slightly on the arteries, which he considered an advantage, but which Balfour doubts, as the blood pressure is more variable and metabolism uncertain. The action of strophanthus on the heart is more transient than that of digitalis and its tonic effects are therefore less marked. Strophanthin fairly represents the action of the drug and is considered reliable by most observers. My own results have been best with the tincture when it was well borne. The dose of strophanthin is from 1/200 to 1/60 of a grain. The former quantity may be used hypodermically. The diuretic action of strophanthus is decidedly uncertain. In vascular diseases with relative cardiac insufficiency it often acts well when digitalis fails or aggravates existing conditions.

SPARTEIN.

Sulphate of spartein is valuable, both as a regulator of functional ataxia and as a stimulant in muscular inefficiency. It is adapted to the treatment of nervous irregularity in drug habitués. In myocardial weakness following acute diseases, especially influenza, it is useful. Its special field of usefulness, however, is in the continued treatment of various degrees of myocardial weakness and ataxia associated with myocardial degenerations of toxic origin, and in the various chronic degenerations which may be grouped under the head of senile cardiopathies. Voight thinks it indicated in weakness of the right heart. Thomas and Cushing, and Matthews think it acts directly on the myocardium. Heffron thinks it a reliable stimulant for weak heart walls. Chapman recommends it in dilatation of the heart, and in dropsy from dilatation of the right ventricle. The action of spartein is rapid and it may be used to sustain the heart until digitalis has had time to produce effects. The drug is soluble and may be used hypodermically. The dose of the sulphate is from ½ to 2 grains.

CAFFEIN.

Caffein has been recommended by Beaumetz, Huchard and Semmola in asystolic conditions, arrhythmia and cardiopathic conditions of bulbar origin as a cardiac stimulant and diuretic. In some instances it is efficient. It appears to be adapted to cardiopathic states associated with nephritis or with vascular disease, or both. In asystolism due to valvular lesions it is not, as a rule, effective, though it may be of use as a diuretic. In too large doses it causes dizziness, faintness and irregular pulse. Heffron recommends it in dropsy from parenchymatous nephritis when the heart is involved. Zenetz condemns it as having a poisonous action on the spinal cord, striated muscle and cardiac muscle like strychnia; as accumulating in action, of slow elimination (lasting from ten to fifteen days after last dose); as causing a slow rise in blood pressure, which culminates in cardiac and renal diseases, in from four to six days in symptoms of impending cardiac tetanus; and as showing marked individual variations as to the toxic dose. He thinks all renal or cardiac diseases associated with atheroma or arteriosclerosis absolutely forbid its administration.

Huchard is not afraid of the toxic effects of caffein, and recommends it when digitalis fails to act on a damaged myocardium, in cardiac weakness from infective diseases, and as superior to digitalis in renal diseases. I have employed it in cardiopathies of renal origin or association with good results, using a salt prepared by combining equal parts of the alkaloid caffein and sodium benzoate, two or three drams of each to three ounces of distilled water, giving a teaspoonful every six hours.

STRYCHNIA.

Next to digitalis, strychnia is the most useful of cardiac remedies. As a cardiac stimulant it is useful in the hypostolic period of all lesions, and is the only stimulant which can safely be used as such in connection with digitalis in any lesion at any stage. It is essentially the best stimulant when the right ventricle is overtaxed from rapidly developed strain. Its frequent hypodermic use is a most valuable means of stimulation in emergencies. The dose is from 1/25 to 1/15 of a grain. J. Basil Hall recommends large doses as a prophylactic against surgical shocks. He gave ¼ of a grain in two cases of impending death from air embolism with recovery. He thinks it futile in such cases to give less than 1/10 of a grain. Baumgarten thinks that in cardiac weakness the best results are obtained from small doses of strychnia, because large doses, besides having undesirable effects on the entire spinal cord by raising blood pressure, immoderately increase resistance to the heart's action long before it can assist it indirectly; that it must be used before the strength of the heart has sunk too low, because on Binz's statement that strychnia raises blood pressure by increasing reflex irritability of the vasomotor center, and not by stimulation, thus necessitating peripheral impulses to accomplish contraction of the vessels, strychnia must fail in the very conditions of collapse for which it is so much depended on; that moderate doses should not be long continued, because, like digitalis, it may accumulate. He charges clinicians with not being as well acquainted with the cumulative effects as physiologists and pharmacologists. Lauder Brunton says strychnia is a "cumulative poison," as it contracts the renal arteries and thus prevents its own excretion. A. H. Carter admits the utility of strychnia as a heart tonic for occasional use, but thinks its prolonged administration not justified except in the smallest doses.

The clinician is forced to deal with conditions of disease as he finds them, and is not always able nor does he always attempt to reconcile clinical results with physiologic argument—a privilege I will here avail myself of. The dosage of such remedies as strychnia must ever be a relative matter. I have administered strychnia continuously in 1/30 grain doses thrice daily for periods of from 6 to 8 weeks with results which I believe to be satisfactory in every respect. Also, I have given 1/15 of a grain hypodermically every 2 hours for 48 hours, and for 2 or 3 doses every hour, in critical collapse in pneumonia, with prompt response to every dose and final recovery. I have seen prompt and effective results from 1/10 of a grain in traumatic and surgical shock, and I am therefore not prepared to accept the second conclusion of Baumgarten.

Strychnia, in small doses, is the most valuable heart tonic we possess, and is particularly adapted to the treatment of senile lesions by continuous administration over periods of several weeks. During the second and third decades of life strychnia is not as well borne as it is later, being likely to excite and irritate the nervous system.

OTHER DRUGS.

Convallaria majalis, cactus, grandiflora, adonis vernalis, nerium oleander, coronilla scorpeoides are all cardiac remedies whose stimulant action is less valuable than those already considered. Canadian hemp has recently been recommended by Golubinin as a valuable cardiac stimulant. He recommends 5-drop doses of the fluid extract three or four times a day.

Suprarenal substance has obtained some use as a cardiac stimulant as would naturally follow from its effect on the vasomotor system. S. Florsheim says the drug acts quickly and causes rapid improvement in flaccid and fluttering hearts, arrhythmia disappears and the heart remains in better condition. The substance appears to have a tonic action on the heart muscle, causes more regular action, increased force and fuller, stronger pulse. Florsheim noted best effects in cases of dilatation with weak pulse, diffuse apex beat and fluttering, irregular action. Two cases showed contraction of the heart with stronger and more localized apex beat. I have employed adrenalin to raise blood pressure in conditions of collapse, and during the critical period of pneumonia when the blood pressure was low and the heart's action weak. In such instances the action of adrenalin is prompt and effective. Three or four drops of a 1:1000 solution may be administered hypodermically. As a cardiac stimulant the use of this substance has as yet been too limited to form definite conclusions as to its full clinical value or application.

DISCUSSION.

DR. HENRY BEATES, JR., Philadelphia—The phenomena of normal circulation depend on a relation of intracardiac pressure or tension with that of the blood vessels, and there also exists a constant relation between arterial and venous tension. I would lay down the rule that all lesions of the heart must be viewed from the standpoint of their being especially local, while all disturbances of the circulatory system, in which the one great result, disturbance of equilibrium, results, are due to either exocardial conditions, local and, frequently, influences operating from both. It is, however, the disturbance of equilibrium which all treatment is intended to overcome, and to restore lost circulatory equilibrium is the one grand object, whether it be by the use of so-called cardiac stimulants, or, as is sometimes necessary, the combined exhibition of these and sedatives.

In every lesion of the heart, there must be, for physiologic reasons, consequent exocardial change. This generally occurs in the arterial side first, and, sooner or later, in the venous also. When these two conditions obtain, the lymphatic disturbances next follow, and these require the observance of the same principle for successful treatment. It is these exocardial secondary lesions and the consequent inability for the disturbed equilibrium to be overcome that indicated, not the diminution of the dose of the cardiac so-called stimulant, but bold and heroic exhibition of increased doses. A moment's thought discloses the fact that, if the vis a tergo is greater than the vis a fronte, the heart feels no strain when its ventricle empties its contents into the aorta, and if it is weakened from a local lesion, there is not that intensified and fatiguing force necessary to be exerted, which adds to an already failing heart. But if the vis a fronte be much increased, it is necessary not only to give strength to the already tiring heart, but to remove the load from in front. There is not sufficient importance accorded to the part played by the arterial system in the work of carrying on the circulation of the blood mass. The importance of thoroughly appreciating the condition of the arteries is not comprehended by the profession generally as it should be, and it is only when the clinician will recognize that each artery is practically a heart for the part it supplies, there

will be a clearer understanding of the application of the principles involved, in the treatment of these conditions. When we give digitalis, or any other so-called heart stimulant (I prefer the term "circulatory" to "heart") we do not, by its administration, act alone on the heart but, let it be emphasized, on the blood vessels also (arteries and veins), and from what has been briefly said, it is evident that the object in view, being to restore equilibrium to the circulation, necessitates aid being given to the blood channels as well as to the heart. It is by this powerful influence on the vessels that digitalis proves so useful in these conditions. It removes the great load from before the heart, and enables the well-nigh exhausted viscus to pulsate, and thus digitalis saves life.

Referring to the mentioned cumulative action of digitalis, the somewhat extended studies of its derivatives lead me to the conclusion that these effects are due to the derivatives known as digitalin Belgic or chloroformique, and digitoxin; they have never occurred after years of continued exhibition of the use of digitalin Germanic Merck. I advocate, therefore, the use of that digitalin known as Germanic Merck. Another point: when any of the galenic preparations of digitalis are given, all therapeutic deductions which may be reached are necessarily unreliable. We know that any drug derived from the vegetal materia medica, in its crude condition, represents a feature characteristic of every vegetal organism. It is that principles or derivatives vary in their percentage presence and solubility; thus, one unit of digitalis leaves might represent 10 per cent. of this, 8 per cent. of that, 2 per cent. of the other, and so on, derivative, and these themselves vary in their percentage degree of solubility in alcohol, ether, chloroform and water. Indeed, some are insoluble in one or the other of these latter, and thus it is that tinctures, infusions, etc., cannot possibly represent a unit of therapeutic strength. The natural result, therefore, of galenic official preparation of digitalis, as well as the rest, is difference in clinical action. Digitonin is soluble freely in water, and hence the infusion contains this derivative in considerable quantity. The digitalin Germanic Merck is also soluble in water, therefore in the infusion we have a preparation that approximates a unit of strength, and for those rare conditions of disturbed circulatory equilibrium, where the action of the medicament is so pronounced on the vasoconstrictors as to produce local peripheral ischemias, and it is sometimes necessary to overcome this by the judicious use of a cardiac so-called sedative, and digitoxin possessing this property preëminently, we have, in the infusion, a very desirable remedy for this particular group of cases.

This point Dr. Patton has very clearly indicated, and brings forth the fact that there are conditions in which both stimulation and properly adjusted sedation may be required, and in these the infusion of digitalis answers a purpose second to none. Numerous cases are characterized by the cardiac musculature being weak, while the arterial tension is increased. In such cases, contrary to the usual teaching, digitalis is not only not contraindicated, but most emphatically demanded. It acts by restoring the propelling power to the arterial system, and removes from before the organically weakened viscus a great and almost insurmountable burden. In these conditions the preternaturally distended side of the circulation will rapidly disappear after full doses of digitalin Germanic Merck, gr. ½ from 3 to 6 times daily, in emergency cases, and a conspicuous great venous tension will, in the course of a few hours, disappear as equilibrium is restored.

DR. W. J. ROBINSON, New York—I wish to endorse what has been said about digitalin. There can be no doubt at all that the cumulative effect of digitalis must be due to some other agent than the principle digitalin. Disappointment in the use of digitalin is often due to the fact that the dose is too small; indeed, this must be so-if we can give digitalin in doses as large as ½ grain three times a day, for days at a time, as we know has been done, and with good results. A prescription that I frequently use consists of 1/12 of a grain of digitalin, 1/60 of a grain of strychnin, and 1/100 of a grain of nitroglycerin. I have had patients take this pill for months without causing distress, or gastric disturbance, or bad results of any kind. I have found this combination a useful stimulant to the circulation, for prolonged use.

Among cardiac stimulants I would include camphor, the value of which is but little known in this country. The best method of administration is in the form of a solution (10 per cent.) made with pure olive-oil, to be given hypodermically. The usual dose of camphor is 1 or 2 decigrams (1½ to 3 grs.), or 1 to 2 c.c. (15 to 30 minims) of the solution. When this is given to a patient in a state of collapse the results are simply marvelous. In such a condition one or two hypodermics will produce most satisfactory results.

With regard to the use of adrenal substance as a cardiac stimulant, its effects are too evanescent for us to rely on it in cases of chronic disease of the heart.

DR. HEINRICH STERN, New York—I take exception to the statement that *Adonis vernalis* is inferior in the general run of cases to digitalis as a cardiac stimulant. I wish to know whether or not the author of the paper bases his opinion on personal experience with adonidin? Basing my conclusions on an experience with several hundred cases treated with adonidin, I maintain that adonidin is not a mere succedaneum of digitalis or its alkaloids, but that its action is in many instances markedly superior to that of the latter drug. Adonidin is more rapid in action than digitalin or digitoxin, and it may be given without hesitation in a number of instances in which digitalis or its preparations should not be prescribed, as a rule. In fatty degeneration of the heart, in various atheromatous conditions, etc., adonidin acts safely and efficiently. In rapidity of action adonidin excels most of the other heart remedies, as digitalin or digitoxin, strophanthus, spartein, etc. In certainty of action it is also superior to these drugs. It is more permanent in action than any of these medicines, without possessing the well-known accumulative properties of digitalis. It is especially useful if kidney disease is accompanying the heart affection. The diuretic qualities of adonidin in the normal kidney are little pronounced; it exerts very great diuretic activity, however, in conditions concurring with dropsy and low arterial tension.

DR. H. C. WOOD, JR., Philadelphia—With regard to the point made by Dr. Beates, I wish to confirm the statement that in the condition called "heart-failure" the heart is not solely at fault, the symptoms are due to circulatory failure. In such cases it is important to see that the vasomotor apparatus does its work. As digitalis acts also on this vasomotor apparatus, there arises a tendency in the minds of the profession generally to overestimate this action of digitalis and to avoid its use as a cardiac stimulant because it increases the resistance in front of the heart, so that the heart being compelled to act more powerfully and to do more work, the drug might fail to accomplish the purpose if the heart should be too weak to overcome the force in front of it. The use of digitalis in acute endocarditis has been advocated by some and condemned by others. In nephritis, we hesitate to give diuretics, because of their action on the kidney structures; but in endocarditis we do not hestitate to give digitalis, for its action is on the myocardium and not upon the endocardium.

With regard to the use of suprarenal extract, or adrenalin, it is to be observed that, when given by the mouth, it is too rapidly eliminated to produce any physiologic action on the circulation. In the laboratory it has been found that the only way to produce any effect on the circulation by this agent is to throw it into a vein. Even then the effect passes off in a few minutes. It is possible that suprarenal extract, or adrenalin, may prove of use in an emergency as a cardiac stimulant in very acute conditions, if used intravenously.

DR. S. SOLIS-COHEN, Philadelphia—The profession owes a great debt of gratitude to Dr. Beates for his patient insistence on the value of digitalinum verum, or Germanic of Merck. After becoming familiar with Dr. Beates' observations, I diminished my use of the common preparations of digitalis and used as much as possible the Germanic digitalin, which permits accuracy and regulation of dosage and is satisfactory in its results. Dr. Beates has also taught the profession that the dose of Germanic digitalin is not 1/60 grain, but more

nearly 1/6 grain, as the rule, and even much larger doses may be given with advantage and safety.

The point that Dr. Robinson mentioned deserves attention; and in order to be clear on the subject we must discriminate more closely between cardiac stimulants—temporary and quick in their action—and those drugs that have a sustained or tonic effect. When we wish to apply a quick spur to a flagging heart, we should give camphor or musk; for tonic action slowly developed and long continued we should turn to digitalis, strophanthus, adonidin, or spartein sulphate; while atropin stands between the two classes. Bartholow used to say to his pupils that we give digitalis to-day and get effects to-morrow. He taught that the stimulant effect of the tincture of digitalis given hypodermically was due to the alcohol rather than to the digitalis. This may have been an exaggeration, but it expressed his estimate of digitalis. The effects of spartein and adonidin on the heart are even more slowly developed than those of digitalis; while strychnin is the most prompt in action of the tonic class, especially as a vasomotor stimulant. The combination of strychnin, atropin and digitalin thus has a special value.

With regard to the suprarenal gland and its various preparations, after a rather extended experience I can not agree with Dr. Wood that when given by the mouth these agents are always inert. It is true that in many cases I have seen no result, but in some cases I have seen decided results which I could attribute properly to them. This might be the result of the method of administration adopted. My instruction to my patients is to allow the drug to dissolve in the mouth, and not to swallow it immediately. From observation of its effects on other mucous membranes, I am led to believe that effects on the general circulation can result from this manner of administration. A drop of adrenalin solution on the conjunctiva will sometimes produce a remarkable effect on the heart. I have made some clinical tests of the effects of this drug in various heart and circulatory disorders. In the Polyclinic and in the Philadelphia hospitals I have employed suprarenal extract in a large series of cases. In exophthalmic goiter it is frequently curative, as in certain types of cardiovascular asthma and albuminuria. In valvular disease of the heart, I have obtained little definite result. In a case of bradycardia, due to Stokes-Adams disease, of which I have notes of the autopsy, I administered suprarenal extract by injection into the conjunctiva; each injection being followed by transient increase in strength of the heart's action. This observation was confirmed by several other physicians who saw the case under treatment. I merely mention this experience to show that as yet the exact value of adrenalin in cardiac disorders has not been determined. We are in a position to say, however, that in some cases it will produce marked transient effects. I believe that when collapse seems to be impending, danger may be averted by this agent. It is certainly worthy of further study.

DR. W. W. TOMPKINS, Charleston, W. Va.—The value of rest in cases of disturbance of the circulation and cardiac weakness is almost as important as the therapeutic agents just considered. It is of prime importance to lessen the work of the heart, and this can be done by rest; in the more aggravated cases absolute rest in the recumbent posture, in the milder cases relative rest obtained by reducing bodily activity. As to the form of digitalis to be used, it depends to a great degree on the idiosyncrasies of the patient. The pharmacopeia directs that its preparations shall be made from leaves of the second year's growth; and we are told that they contain nine alkaloids, each one exerting different physiologic effects. As far as my own experience goes, I regard the infusion as of most value, principally on account of its diuretic action. I think that in many of the cases of this character it is well to combine some form of iron with the digitalis, because these patients are generally very anemic. As a cardiac tonic, strychnia is most effective, and I frequently combine it with the digitalis and the iron. I believe, however, that, to a great degree, each case is a law to itself, and the method of treatment and the drugs employed must be selected according to the requirements of the individual cases.

PROF. C. S. N. HALLBERG, Chicago—I wish to make a simple suggestion. Empirically, it is generally stated that there should be a distinction made between the infusion of digitalis and the tincture. The difference between the two preparations is unquestionably due to the fact that the active principles of digitalis are glucosids. Like all glucosids they are apt, in the presence of water, to decompose and to split into glucose and other principles, but in alcohol this does not occur and they retain their original character. This is of importance to pharmacists, as it bears on the question of the propriety of making the infusion from the fluid extract. The great difficulty with digitalis is—and we have the same with ergot—that sufficient attention has not been paid to this splitting of the active principles in the presence of water. We know that in the presence of water, amygdalin and emulsin in wild cherry and bitter almond form hydrocyanic acid, and that in many other glucosidal drugs there is probably a similar reaction, and that it is very important. In all these preparations of similar character, the method of manufacturing must have a great influence upon the therapeutic value of the product. The committee on revision of the pharmacopeia wished to make a standard for the preparations of digitalis, but found it impracticable to do so. Our knowledge is not sufficiently advanced at present to permit this to be done. It is the same with ergot. I mention this fact in order to indicate the necessity for a more thorough knowledge of the constituents of these plants, so that their active principles may be of more uniform potency and strength.

DR. JOS. M. PATTON, Chicago—The point of Dr. Beates on the pharmacodynamic relations between disorders of the circulation, diseases of the heart, and digitalis, was explained in a lucid manner. The opinion has been expressed that digitalin is a safe, reliable and effective agent in relatively large doses and the statement made that it can be given in such doses for a considerable period of time, in appropriate cases, without danger. I concur in this opinion, but think that patients should be kept under careful observation, when such unusual doses are given.

In reference to the remarks about camphor, in my paper I did not take up that class of remedies but only the direct cardiac stimulants. In cases where a prolonged effect is required, we use digitalin because its action is more sustained. It not only increases the power and action of the heart, but keeps it up. If we wish to have only a temporary stimulating effect we use ammonia, alcohol or some other article of that class; but for a sustained effect we give digitalis.

In reply to the gentlemen who spoke of *Adonis vernalis*, my paper was confined to the statement of the results of my own experience, and I have had no experience with adonidin. I feel satisfied, however, that where a heart-muscle is degenerated or weakened I can not get the results from adonis that I can from digitalis. My experience does not confirm the claim that has been made on behalf of other drugs that were said to be as good as digitalis, although I would be very glad to have something as valuable as digitalin to use in the class of cases needing a heart tonic. I confirm the remark of the gentleman from West Virginia about adjusting our remedies to suit the individual case. He was also perfectly correct in saying that rest is one of the most important cardiac remedies. There is no reason, however, why the infusion should be different in its effects from other preparations of the drug, if the others are given in corresponding dosage. In some patients the infusion is preferred, in others the tincture may be more suitable. Personally I have been in the habit of relying on the digitalinum verum for the reason that it is reliable. It also agrees with the stomach better than the other preparations and the dose can be regulated more accurately to suit the needs of the case than any other form in which this remedy can be administered.

Ice for Respiratory Hemorrhages.—Ice applied to the external genitals—the scrotum in men, the labia in women—is said to the best and simplest method for controlling blood-spitting and nose-bleed.—*Canada Medical Record.*

ADENOIDS.*

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NEW YORK.

About seventeen years ago, when I came to this country, after having seen and operated on many cases of adenoids at Berlin and Freiburg, at one of the first meetings of the New York Academy of Medicine which I attended, a prominent colleague made the remark that while there might be found such things as adenoid vegetations among the children in Denmark or in Germany and Russia, the Anglo-Saxon race was free from that anomaly. In the years that have elapsed, I am confident that the gentleman has been convinced that they do exist in England as well as in the United States, and nowadays I have yet to see the practitioner who has not encountered cases of so-called adenoids in his own practice. They have been, so to speak, part of my daily bread for more than eighteen years in clinics and private practice. Still, when your Chairman did me the honor of asking me to read a paper before this Section, I was somewhat embarrassed as to what to say to a body of experienced practitioners that would be new to them on this topic. The libraries abound in articles and pamphlets on adenoids, which for some time have been viewed, not as a curiosity, but as an every-day occurrence. They have become so frequent in all parts of the globe that every practitioner must of necessity be familiar with them.

Adenoids grow in a place which I long ago considered the most important of the whole breathing apparatus, viz., the retropharynx. We can and do examine easily all other parts of the upper respiratory tract, but the retropharynx, which is the *locus minimæ resistentiæ* for many a disease, is too often overlooked. No wonder that adenoids, which have existed as long as civilization, were overlooked, and discovered only as late as 1868 by Wilhelm Meyer of Copenhagen. It is undoubtedly true, however, that Voltolini removed them already in 1865 with the galvano-cautery without recognizing their importance.

Now, what are adenoids, or, as they are also called, adenoid vegetations, adenoid growths, pharyngeal tonsil, third tonsil or Luschka's[1] tonsil? We had known since the time of Morgagni that the parts in question belonged to the tonsillar tissue, but only through the works of Henle, Kölliker and His have we acquired a thorough microscopic knowledge of these structures. It was my former teacher, Prof. Wilhelm His of Leipzig, who called it adenoid tissue, and since then the name adenoids has become so popular that we can no longer change it. Waldeyer showed that the adenoid tissue in the upper pharynx is only a part of a lymphatic pharyngeal ring ("lymphatischer Rachenring"), which now goes under the name of Waldeyer's ring.

Any part of this ring may undergo acute and chronic changes. Just as the faucial tonsil may become the seat of acute and chronic inflammation, the pharyngeal tonsil may be similarly affected.

ACUTE CATARRHAL INFLAMMATION OF THE PHARYNGEAL TONSIL.

This is called by the French adenoiditis, with which most likely the *fièvre ganglionnaire* is identical. It is not as infrequent as is ordinarily believed, for, according to my experience, it often occurs in young children. As an examination is difficult or often impossible the diagnosis is very seldom made. A digital exploration should be omitted, if possible, on account of the reactionary inflammation and pain following this procedure. The main symptom of an acute adenoiditis is earache. It is sometimes very severe, and as there is pain in swallowing at the same time, the child refuses all food and runs down quickly. Frequently the child pulls on the ear, and this is taken either as a diagnostic sign of teething or of an acute otitis media. I have examined the ears of such children, but found nothing pathologic there, and the whole process subsided without affecting the ears at all. This, unfortunately, does not always occur, for pus forms not infrequently, as you all know. But this happens mostly after or in connection with an acute adenoiditis.

In other cases the sound of the voice is muffled and the breathing difficult, which again is regarded as "a cold in the head." Here the examination of the nose reveals nothing, except perhaps a slight hyperemia of the mucous membrane. In grown children the pain in swallowing is very characteristic, and resembles very much that seen in cases of tonsillar or peritonsillar abscess. In my cases fever has always been present, sometimes as high as 104 F.

If there already exists a hypertrophy of the adenoid tissue in the vault of the pharynx, then the tendency to acute inflammation is so much the greater, just as with the faucial tonsil.

THE TREATMENT OF ACUTE ADENOIDITIS.

The treatment which has given me the quickest and best results is the following: First evacuate the bowels and put the child in a hot bath with some mustard in it. Then give small doses of quinin, or aspirin, or salicylate of soda, and order inhalations of the normal salt solution or of some aromatic oils every two or three hours. Sometimes I direct a few drops of adrenalin (in the proportion of 1:6000, 1:8000, or even 1:12000) to be sprayed or dropped in through the nose, of course, warm or lukewarm. This can be done every few hours according to the age and condition of the child. A Priessnitz compress around the neck over night is sometimes of great service.

I will omit here the acute follicular and the acute phlegmonous inflammation of the pharyngeal tonsil, and come now to the well-known chronic form.

HYPERTROPHY OF THE PHARYNGEAL TONSIL.

As a matter of fact, this affection ought to have been recognized one hundred or more years ago, if some one only had had the idea, that apparently is not too far off of applying digital examination of the retropharynx in cases of obstinate nasal obstruction. By digital examination alone has it been made possible without any special skill to generally recognize the hypertrophy of the pharyngeal tonsil so very frequent among children. Surgical operations with cutting instruments in place of the inconvenient and difficult galvano-cautery operation has opened the therapy of this affection to the whole medical world (R. Kayser). It is important that this has been finally accomplished, since no single affection in the whole domain of medicine and surgery has so far-reaching an influence on the public health as these "innocent little overgrowths," as Dr. Francis[2] called them. I should rather call them "nocent," knowing what harm they can do. When we consider that Max

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Diseases of Children, and approved for publication by the Executive Committee: Drs. H. M. McClanahan, Edwin Rosenthal and Samuel W. Kelley.

Schaeffer,[3] twelve years ago, found among his 1,000 cases of adenoids that in 467, or in almost 50 per cent., the ear was involved, and that William C. Braislin[4] concluded in 1900 that ear diseases almost invariably accompany adenoids, we have no right to call these growths innocent. They have done an immense amount of harm. "But by sheer weight of evidence, practitioners of medicine, parents and others who have to deal with the young, have at last become convinced of the practical importance of the discovery, with the result that many cases which forty years ago would have been allowed to lapse into hopeless deafness, or to fall victims to all the baleful consequences of neglected middle-ear suppuration, are quickly recognized and relieved."[5] These last remarks were made by Yearsley only a few months ago. When we analyze statistics, however, we must ask ourselves: Are these little overgrowths on the increase among children or not? It seems to me that it is a difficult matter nowadays to find a city child without adenoids. There is, to my knowledge, no difference as regards climate, race or sex. No race is exempt from them, and while we formerly believed that they were more prevalent in damp or cold countries, we now know that this was a fallacy. In all countries, whether warm or cold, dry or moist, adenoids prevail, and they occur *ceteris paribus* in about the same proportions. The cause of their existence in such enormous numbers is due to our modern mode of living, to the poor and faulty hygiene that surrounds our children. But what special agent is at the bottom of it? Is it the housing of our young ones; is it the simply appalling neglect of all laws of hygiene in our public and private schools, not to mention the "kindergartens"; or is it something else? Many of our kindergartens, indeed, deserve much more the name of pest-holes than that of a "garden." A "kindergarten" in a low, overheated, ill-ventilated room, as most of them are, is a menace to humanity. Frœbel would turn around in his grave if he were to see what sort of hygienic methods we apply to the growing generation. And most of the other schools are no better. These, indeed, are the most favorable conditions for developing catarrhal inflammations of the upper air passages, as I have attempted to prove elsewhere. These inflammatory processes of the nose, and especially of the retropharynx, are the first consequences of the evils just spoken of, and on the basis of these "catarrhs" adenoids develop. They are nothing but the products of a reactionary inflammation, which sets in easily under the influence of various causes. If, for example, such a child is infected with scarlatina, measles, diphtheria or other diseases affecting the upper air passages, the already existing "catarrh" is very much exaggerated, and then, as happens so often, we have adenoids following almost immediately these infectious diseases. Such children are sometimes brought to me for the removal of their adenoids, at a time when I consider it too early to operate, being afraid that the infectious germs have not yet left the air passages. To give you an illustration: A child came to me two weeks after it had recovered from a pronounced attack of faucial diphtheria, and as the Klebs-Loeffler bacillus has been met with at a much later period in such cases, I thought it possible that a new infection might be stirred up by the operation, and therefore postponed it.

Even tuberculosis can make its primary entrance through the retropharynx, as I proved some six years ago. It is evident that the organism frequently reacts against the invasion of tubercle bacilli and hypertrophy of the lymphoid tissue at the vault of the pharynx is one of these evidences. There is no doubt that tuberculous infection of the adenoid tissue is found only exceptionally, and the reason for this is that the mucous membranes of the head, as has been shown by Bollinger, manifest a marked tendency to allow the tuberculous virus to pass through their structures without themselves becoming diseased. And this quality is considerably enhanced by pathologic and especially inflammatory changes of the mucous membrane. Thus we can understand how the tubercle bacillus will penetrate even the intact mucous membrane. But what becomes of it? No doubt when it penetrates into the deeper tissues its passage is followed by a reaction, the result being adenoids in the first instance, and then, lower down, swellings and suppuration of the glands of the neck. That these lymphomata colli are in direct connection with the adenoids is demonstrated by a case like the following:

CASE 1.—N. McC., twelve years of age, was brought to me from Newark, N. J., with a lymphoma colli. I opened it, removed a quantity of pus and all diseased tissue and sent him to the mountains for four months, where he was under the best care possible. The boy had slight adenoids which I did not remove at once, as the parents would not give their consent. The wound did not close, and finally, after three months more had elapsed, I operated on the adenoids, with the result that within two weeks the wound of the neck had healed thoroughly. The boy is now in his seventeenth year and well and strong.

I am under the impression that since adenoids are removed so freely, glandular swellings of the neck have become more rare. I am not positive whether further statistics will verify this.

If, for some reason or other, the path of the tubercle bacillus downward is closed up, by adenoids or other causes, it makes its way to the cranial cavity, where a tuberculous meningitis, so frequent among children, is set up. This idea of mine is as yet only a theoretical deduction which I can not prove, but which seems very plausible to me. In an interesting paper read before the International Medical Congress at Paris, 1900, Dr. Paul Gallois spoke on infection through adenoids. He also believes that they are not only the seat of primary infection, as tuberculosis, etc., but that they are apt to spread various infections to the neighboring and remote parts of the organism. Thus, for example, many cases of infectious sore throat result through adenoids; rheumatism in different parts of the body also has its primary origin in the retropharynx, the seat of these little growths. This is a point which I mentioned some time ago. We have come to recognize the fact that articular rheumatism often gains access to the system through diseased tonsils. While this may be true to a certain degree, I have always, and still do, attribute the more important rôle in this respect to the retropharynx. We see the tonsils, but we do not see the retropharynx, that is to say, in over 50 per cent. of all cases it is not examined, and therefore overlooked. Adenoids only help to make it the *locus minimæ resistentiæ*.

Normally with the establishment of puberty an atrophy of the pharyngeal tonsil sets in, which B. Fränkel called the physiologic involution. This involution also takes place when the adenoid tissue is hypertrophied and has not been removed. One of the results of this is the familiar form of postnasal catarrh; another the cicatricial process known as Tornwaldt's disease. Schwabach has shown that what is called by Tornwaldt the bursa pharyngea, was perhaps nothing else than the median recess of the pharyngeal tonsil. On

the other hand, Lehmann has described a congenital cyst of the bursa pharyngea. There can be no doubt however, that the bursa itself is an anomalous structure, as has been demonstrated by Mégevand, Max Schäffer, Jonathan Wright and others. It must surely be of rare occurrence, since it has been observed by so few authors.

As the time allotted me has nearly expired I shall discuss only a few additional points. To speak before such a society as this is, of the symptoms, diagnosis and effects of adenoids on the ears, eyes, respiratory tract, abdomen (hernia[6]), and on the system at large, would be to carry coals to Newcastle. All this is so well known that I believe it to be the common property of every practitioner.

Let us rather discuss the questions: 1. When shall we operate? 2. How to operate? And 3. What are the after-effects and after-treatment?

WHEN SHALL WE OPERATE?

As these growths make their presence felt from the first weeks of infancy we sometimes have to operate very early. The youngest child that I have operated on was seven months old. In this case there was a stubborn mucopurulent discharge from the nose that did not yield to any treatment, and as the whole postnasal space was filled with adenoids the child took nourishment with great difficulty, did not gain in weight, but was losing ground constantly. All these symptoms improved after removing the adenoids. Still, I do not like to operate on children under 2 years of age, as almost all the reactions I have noted after these operations were in infants under 2 years. I could not always explain their occurrence satisfactorily. In older children I can not recollect having witnessed fever of any account. But I will admit that I have not examined my books with a view of elucidating this point. To go through all my private records and clinical notes for this purpose would mean an immense sacrifice of time, which I did not have at my disposal. Let me narrate some of these instances:

CASE 2.—M. S., 15 months old, was operated on at 8 a. m., May 16, 1887, for simple adenoids. In the afternoon the child was restless, refused all nourishment and felt "very hot." My assistant found an elevation of the temperature of 106 F. at 5 p. m. As I was out of town, I did not see the child until the next morning, when the temperature was perfectly normal. The child recovered quickly.

CASE 3.—Another case was that of H. K., 13 months old (adenoids—otitis media purul.—mastoiditis). A colleague in this city had advised removal of adenoids prior to the mastoid operation. The parents consulted me, and I coincided with his opinion. On Feb. 16, 1894, I removed the adenoids under chloroform. February 18, the child had a temperature of 104.2 F., profuse discharge from the nose and ear, was restless and took no nourishment. There was a good deal of edema of the uvula and the neighboring parts, which I directly ascribed to the operation. The manipulations with the curette were sufficient irritation to produce the edema in this delicate infant. There were no other signs of a reaction. The high temperature persisted for three days, when it became normal again. The discharge from the ear ceased completely two months later, and there was no longer any indication for operating on the mastoid.

I was under the impression that in this case the infection was carried from the ear to the retropharynx. As the result was so excellent I should not hesitate to take the risk in similar cases. On the contrary, I consider any danger arising from the ear, and the inability to take sufficient nourishment as positive indications for removing the adenoids, even in very young infants.

When, however, we have an infant with adenoids that breathes comfortably, sleeps restlessly only when it has a "cold," has no ear complications, and takes his food properly, I invariably prefer to defer the operation until the child is 2 years old or more.

When the child is older, shall we operate whenever we find a hypertrophy at the vault of the pharynx? By no means. Slight hypertrophies are so common that they can hardly be called deviations from the normal, and to operate in such cases is, to say the least, unnecessary. But, unfortunately, it is done, and like every other procedure that has proved of benefit, it is overdone nowadays. "Many a pharyngeal vault is scratched because it contains a perfectly normal amount of lymphoid tissue, and the child is really suffering from the vasomotor results of too much candy on the stomach, or of too much clothing on the back, or of too much coddling in steam-heated houses." (Jon. Wright.)

Fifteen or twenty years ago there was need of encouraging the performance of these operations, as the majority of practitioners were more or less afraid of handling adenoids. Naturally enough many cases were neglected at that period. Nowadays it is better to sound a word of warning in the other direction. I know that too much operating is being done already. I could narrate many interesting instances of this kind coming under my observation, were I not limited in time. Not every child that snores, or keeps his mouth open, has adenoids. There are other things under the sun which we can and must treat!

In spite of this, there remain thousands of cases where we absolutely have to remove the adenoids. When a child is brought to us with adenoids which even only partially close up the choanæ, or where an affection of the ear coexists, not to speak of all the other well-known lesions that occur as sequelæ of adenoids, then I advise the parents that an operation is absolutely necessary and that its omission is a very risky and perhaps dangerous matter for the child's health.

Let me remark, apropos, that I have not had the courage to operate in hemophylics, of which four cases came under my care.

THE OPERATION ITSELF.

When we do operate, we must not forget that we have here to deal with a field that is already infected. No amount of antisepsis will do any good in these cases, but they are liable to do harm. My views on this point have not changed for the last fifteen years, viz., that a strict antisepsis is impossible and unnecessary. And this is much more true of the retropharynx than of the nose.[7] To wash out the mouth and throat with any antiseptic solution will be found bacteriologically entirely useless. The contact of the fluid with the mucous membranes is too short to kill even one bacterium. To wash the face of the child with an antiseptic or alkaline solution before the operation is playing with antisepsis, and syringing the nose before operation is dangerous.

For general anesthesia I invariably use chloroform, and am glad to be in accord with Sir Felix Semon and W. Williams.[8] The few times I have given ether or ethyl chlorid I was not pleased with the narcosis. Still, I must admit that there are many with wide experience who prefer either of these two.

In what position shall the patient be placed during the operation? For several years, i. e., from 1887 to about 1893, I used the upright position, recommended again lately by T. R. French[9] in a very instructive paper. I have given it up again: firstly, because in older chil-

dren it was not very convenient, although I must admit that at that time I did not have Dr. French's chair, but an arrangement of my own; secondly, because I encountered a few times unpleasant accidents which were due to the upright posture. I remember one case, a boy of 14, without any cardiac lesions, where breathing stopped for a while, the pulse became very feeble and I had to work for about two hours in order to thoroughly restore these functions. Similar, though not marked accidents have happened in several other instances, so that I came to the conclusion that the danger of anesthesia in the upright position was well founded. Nor do I favor the so-called Rose's position, i. e., with the head of the patient drawn over the edge of the table and bent well back. I am under the impression that the severe hemorrhages that have followed operations in this posture were indirectly caused by it. The surgeon is more apt to cut deeper into the normal tissue and wound a larger vessel, as the parts are more exposed.

Without any previous preparation, as douching or syringing, etc., my patients are put on a table, lying on their backs, the head not being raised and only a small pillow placed under it. The chloroform is given "slowly and cautiously and not pushed to the abolition of the cough reflex which protects the larynx against the entry of blood (*loc. cit.*, p. 720). The operation is performed thoroughly, which means all pathologic growths are removed and not a particle more. We "shave the surface clean" and no more. The attempt to remove all adenoid tissue will only be made by those who forget that we normally have and need such tissue. I have seen the operation done so "thoroughly" that I was convinced that the greater part of the mucous membrane was removed at the same time. On the other hand, there is often found a mass of thickened tissue at the lower edge of the growth, just below the velum, and I agree perfectly with French that this should always be well removed. A failure to do so is invariably followed by incomplete restoration of nasal breathing.

AFTER-TREATMENT.

As mentioned above, no preliminary antiseptics are used. If the patient bleeds during the operation and the blood flows through the nose and down the pharynx, this is the best antiseptic we could wish for. At the same time the flow of blood brings away masses of pus and purulent matter that have accumulated there for long periods. My after-treatment consists in keeping the child quiet for a day or two and giving it a carefully selected diet. The application of a nasal or postnasal douche I consider dangerous right after the operation.

Now, some children will not lose their nasal or postnasal catarrh after the operation, and the most important after-treatment has to commence then. I prefer to perform these operations in the spring, so that the children can stay, if at all possible, a few months in the country, preferably in the mountains. I have had excellent results in these cases, although naturally I have had to operate during all seasons, and with good results, too. In other instances, we have to treat the nasal catarrh systematically. If this be neglected, and it is neglected often, then a relapse of the adenoids will surely follow. In six months or a year we will have the same amount of adenoid tissue as before, in spite of the fact that they had been removed thoroughly. In very old and neglected cases we sometimes find hypertrophies of the turbinals which do not recede after the operation. In such cases, which are nothing but *stasis hyperemia*, the galvano-cautery was formerly used. I warn against such a procedure, as atrophy of the nasal mucosa will often follow. The congestion that is present ought to be removed by treating the postnasal catarrh with all perseverance possible. Among the different factors in the management of adenoids none is of greater importance than the treatment of these nasal and postnasal catarrhs after operation, and by persistent efforts in this direction I am sure that we will obtain still better results than have been achieved heretofore.

I trust these brief remarks will bring out a full discussion which will prove of benefit to all of us, although I am fully aware that I have touched on only a few points of this extensive and important subject.[10]

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10. After I had finished this article I received a book by Sir Felix Semon, entitled "Some Thoughts on the Principles of Local Treatment in Diseases of the Upper Air-Passages." London, 1902. Dr. Semon deals here extensively on adenoids and I appreciate that we agree on most points. His remarks are so excellent and touch in a broad sense on so many questions that I believe every practitioner ought to read this booklet.

CHLOROSIS.*

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ETIOLOGY.

This affection is, with very few exceptions, confined to the female sex, and that principally during adolescence, usually heralding some disturbance of menstrual function, but chiefly characterized by deficiency of hemoglobin of the blood. It seldom affects early childhood, and if so, is usually connected with precocious development of sex. It is also seldom seen after the thirtieth year, but is by far most common at the beginning of puberty. It is also claimed to be at times hereditary, or apparently so. Sedentary occupation, indoor life, unsuitable food, excessive physical and mental activity, emotional or psychic disturbances are all causative in the majority of cases of chlorosis. It is remarkably frequent in girls who menstruate prematurely, indeed, one can usually predict a case of chlorosis in girls whose first menses appear very early. Often this affection is associated with anemia, coexisting or following soon in its wake. Careless observers may make a mistake in diagnosis, though this is one of the most easily diagnosticated of all diseases. These patients are often plump, even fat, or may be plethoric, making a striking contrast to the various cachexiæ for which it is sometimes mistaken. It is never due to menstrual troubles; these may follow, not precede or cause chlorosis. Nor does it ever give rise to tuberculosis, as popular fallacy teaches, but the reverse is exactly true, although at times it follows long protracted sickness and wasting discharges.

The worst cases we find among factory girls in large cities, for obvious reasons; however, it is not rare in all

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conditions of life. As far as race is concerned, we find it to preponderate by far among the white race. Constipation is usually present, and precedes the affection, as also do gastrointestinal disturbances and anorexia.

The chief causes are sex, puberty, predisposing constitution and, perhaps, heredity. The exciting causes are often anemia, insufficient and improper food, poorly lighted habitations, mental and physical overwork, grief, worry, anxiety, nervous excitement, sometimes cold and constipation, producing an auto-intoxication, gastroptosis and enteroptosis, these last two being usually brought on by tight lacing.

SYMPTOMS.

The appearance and symptomatology of the patients are characteristic, so much so that an experienced physician usually makes his diagnosis by inspection, of course supplementing the same by careful examination, not forgetting in difficult cases a blood examination for the estimation of hemoglobin, which is always deficient, often as low as 30 per cent. and even lower. Hence these patients are pallid, especially cheeks, ears and lips, also conjunctiva. We also note a yellowish white or greenish white tint, hence the name chlorosis. When blood is drawn it is often so pale as to scarcely show any red color, and an easy test is now made and a fairly correct one by means of the Tallquist hemoglobin scale, in which various degrees of red indicate approximately the percentage of hemoglobin present. This device is in booklet form and all you need do is to stain one of the sheets with the patient's blood and compare with the scale to make your estimate, which for clinical purposes is sufficiently correct. I need not draw your attention to the more difficult method with the hemoglobinometer, which, though more correct, is not always convenient to every practitioner.

Coexisting with diminished hemoglobin we also have at times a diminution of red blood corpuscles, especially in the later cases that are complicated with a true anemia. It is needless to add that in all these cases the blood is deficient in iron. All the chief symptoms are, however, caused by the deficiency in hemoglobin, its resulting interference in gaseous tissue interchange, causing a general derangement in function of the various organs. Fatigue, dyspnea, palpitation, easy perspiration, heart murmurs, arterial and venous murmurs of the jugulars and femorals, all are found in some cases or other of chlorosis, complicating the diagnosis at times so as to cause suspicion of other coexisting maladies, which usually are not present, and if so, not to the extent first suspected.

Concerning latent tuberculosis, there is a popular misconception, even among some ignorant and careless physicians, that in some way these two affections are connected, the one being causative of the other, but this is wrong, and careful study will soon dispel the thought of such relationship.

DIAGNOSIS.

Edema being common in both diseases we must differentiate from nephritis by careful urinalysis. Neurasthenia sometimes comes in for its share of attention, also hysteria, and observing headaches, hemicrania, neuralgia, especially the intercostal and gastric forms, tinnitus, insomnia and other nervous symptoms, warrant us in taking them into account, and often we find one or the other to be the chief affection. Hemorrhages, such as epistaxis, menorrhagia and hematemesis, are misleading, but rare, complications. The respiratory system frequently complicates matters. Slight laryngitis, rhinitis, functional aphonia and dyspnea are observed often. Bronchitis occasionally and tuberculosis develop in a fair number of chlorotics.

This last point deserves elaboration. It is a popular error, I wish to repeat with emphasis, with the public, whose information usually trails fifty years behind professional knowledge, that tuberculosis is caused by chlorosis, or, as they express it, with monthly troubles, especially amenorrhea. This view, I reiterate, is fortified by careless and ill-informed members of the profession, when we know the converse is true; namely, consumptives who have the disease in its incipiency simulate chlorosis, and also have amenorrhea as a simple conservative of Nature's vis medicatrix. We should all strive to correct this false teaching, because the public usually clamor for a restoration of the menses, claiming failure and inability on our part in case we do not accomplish it.

THE LACK OF IRON IN THE CHLOROTIC.

Intestinal and gastrointestinal disturbances are not rare; indeed, Forschheimer's theory is that the intestinal tract is the site and origin of hemoglobin formation, hence chlorosis is caused by alimentary canal disturbances, but this has so far not been proven. Virchow claimed it to be caused by arterial hypoplasia, also not proven, because we find arterial hypoplasia absent in many chlorotics and present in many who are free from the disease. Von Noorden thinks it due to an internal secretion of the ovaries, a disturbance of which causes the defective hematogenesis. Bunge's claim that the cause lies in the adolescent female storing up iron to be used in supplying the livers of her offspring is not easily susceptible of demonstration, though excess of iron is found in the breasts and uteri of adolescents. The fact remains that we are still ignorant of the anatomicopathologic causes of the origin of this common affection, and a wider knowledge of this as yet unexplored field of blood chemistry may in the future reveal to some investigator what is as yet hidden. As to whether we have less or more of this disease than formerly the best authors differ widely. Vasomotor disturbances are very common among this class of cases, general and localized sweating, flushing, cold areas, as hands and feet, shivering, vague anginal pains, thyroid enlargement and simple polyuria, are frequently noticed, and a pseudo exophthalmic goiter has been noticed by a few. Plausible light on theories of etiology is given by the assumptions of Frederick Taylor, in which he holds that women have less iron, hence less hemoglobin than men, and during adolescence a greater drain is made on them than usual. Healthy women having a reserve store in their liver and spleen can easily supply an excess loss, until Nature comes to their rescue; if not, there will occur a deficit, hence a chlorosis or a chloro-anemia. If to the normal excretory loss we add menorrhagia or other hemorrhages the result is all the more emphasized. But when we have amenorrhea it should be considered a conservative measure, hence protective and beneficial to the patient.

THE TREATMENT BY ADMINISTERING IRON.

Now this view of chlorosis naturally suggests the treatment; namely, to supply what is lacking—iron. Even though there is a want of consensus of opinion as to the etiology, yet all writers agree as to the lack of hemoglobin, and in some cases a deficit in red blood cells, next gastrointestinal disturbances, constipation, bad food, indoor life, unhygienic surroundings, so much so that the treatment mainly consists in bringing about

opposite conditions, to-wit: the administration of iron, regulation of bowels and stomach, purgation, better food, outdoor life, except in the very worst cases where rest at first does most good, and the amelioration of general surroundings. Of all these the administration of iron and purgatives holds first rank, and will probably cure the vast majority of cases.

Now the preparations of iron with which the market is flooded are legion, each one making claims above all others, but few if any come up to the expectation we have from Blaud's mass of the carbonate of iron, either as originally made or compounded with purgatives, also with strychnin, arsenic and sumbul. The number of formulæ in pills or tablets is sufficient to satisfy the most fastidious in almost any case. Special claims have also been made for the lactate and oxalate of iron, also for a number of organic forms, of which ferratin made from the liver of animals is a good example, also numerous solutions such as the peptonates and dialyzed iron, but all of their extravagant claims are not substantiated while many of them are practically inert. In giving iron a pill containing three grains of Blaud's mass may be given after meals, and this amount gradually doubled and even tripled. Even though we know all of this is not absorbed, yet it is best that sufficient be exhibited to supply all deficiency as well as counteract any destructive chemical reactions with the sulphites of the intestinal tract.

When constipated, purgatives, such as aloes, cascara or the salines, alone or in combination with chalybeates, must be pushed to satisfaction to overcome the constipation and its auto-intoxications, and resorption of alimentary toxins. Such hygienic measures as cold sponging on rising, gentle exercise and, those who can afford it, a residence at some iron springs, will add much to a speedy recovery. Relapses must be guarded against and when they occur be treated. An occasional case of pernicious anemia or a latent phthisis may stare us in the face and mock all our therapeutic measures, thus proving the diagnosis wrong. As a rule, however, a careful diagnosis with an iron therapy will conquer the worst cases and make much reputation for the painstaking practitioner. The emancipation from mistaken notions of dress and education, combined with modern ideas of athletics and gymnastics, may do much in preventing this terrible condition among the young girls of the coming generation.

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DISCUSSION.

DR. E. F. WELLS, Chicago—The investigations of Lloyd Jones show conclusively that every young woman is skirting along the borderline of chlorosis, and that very little is required to cause her to fall over the brink. These investigations have occupied a number of years, and any one who is accustomed to making blood observations as a routine measure in young women will not be long in subscribing heartily to the conclusions of this investigator. That the essence of the matter, from a blood standpoint, is one of failure in the absorption of iron, and not a destruction of erythrocytes nor of too easy loss of hemoglobin from these corpuscles, seems to be almost conclusive when one examines carefully and properly-stained specimens for granules in the nuclei of the white blood corpuscles. In these cells the granulation will be found much less marked than in the ordinarily healthy woman, and showing a remarkable contrast to what is seen in pernicious anemia.

I am myself from the middle west, and I can not subscribe to the opinions put forward by the essayist that one method of diagnosis and one method of procedure which is applicable and useful in New York and Philadelphia, is not applicable to our middle western country. We can examine the blood and the patients just as well in Chicago, just as well on the prairies of Iowa as in New York or elsewhere, and it should be done, and must be done, if we are to make any pretense of doing justice to our patients and to the scientific medicine of to-day.

Any physician may make a careful examination of the blood, count the red corpuscles, estimate the hemoglobin, count the white blood corpuscles, stain them and make a differential count in from one-half to one hour. Such examinations are essential in the diagnosis and in the management of cases of chlorosis. These cases have interested me for many years, and after having read Niemeyer's glowing description of the value of Blaud's mass in the treatment of chlorosis, now incorporated in all the modern text-books, and noting the positive statements made as to the ready and rapid curability of chlorosis, I early followed his plan and met many disappointments. Without any reservation I can affirm, as the result of considerable experience, that chlorosis is not a quickly and easily curable disease. You will hear about others finding it so, but I will venture the assertion that you will not see it in your own practice. No matter what you give, or what you combine with your preparation of iron, you will find, by blood examinations made from week to week, that the patients remain almost at a standstill for some time. After from five to seven weeks, and without any special change in your line of treatment, these cases will improve and do so suddenly and rapidly. I believe that during this apparently stationary condition improvement is going on in certain directions. As is well known, the red blood corpuscles are almost as numerous as in health, but they are small and thin and do not contain the proper quantity of iron. If you will examine the blood of these patients with the hematocrit as well as with the blood counter, you will find that the percentage of blood corpuscles is increasing; that they are increasing in bulk, and judging from subsequent events are probably taking on, gradually, that receptivity for the absorption of iron which they lack and which is essential for improvement. All of these patients should be cautioned against exposure to cold. Cold sponging or bathing in the morning will retard the recovery of these patients. Rest in bed in severe cases is almost a necessity in the beginning of the treatment. After symptomatic recovery these cases still keep along the border of chlorosis, as shown by the tendency to relapses, and it takes years to bring them up to the full hemoglobin standard, and up to the normal standard for the size and number of blood corpuscles of health.

DR. I. A. ABT, Chicago—I wish to emphasize some points in the etiology. First, it should be remembered that chlorosis occurs most commonly about the period of pubescence, indeed, so commonly that one naturally concludes that there is some relation between the development of the organs of generation and the blood condition. A theory on which Dr. Wahrer has dwelt is that of intoxication from the intestinal canal. It has been suggested that girls at the age of puberty are so frequently constipated that a condition of intestinal toxemia is present, but I think greater credence should be given to the first theory. The importance of blood examination has been already emphasized. I believe iron has been given so long in these cases that we almost all look on it as a specific, yet how can the iron possibly act? Is this heavy metal taken up by the corpuscles, or does it act in the intestinal canal in some chemical way so that it combines with toxins or with sulphates, and in this way brings about the elimination of toxic products? This seems to be a reasonable explanation; certainly it appears to me more logical than to believe that heavy metallic iron can do any good by its direct absorption or its appropriation by the red corpuscles. I wish to call attention to the fact that these young people are sick for a long period, and to emphasize the fact that they need careful hygienic management. They should be directed to take a certain amount of rest. Often the pulse is soft and compressible, the heart is dilated, and the seat of blowing murmurs. Patients should be told to take longer hours of sleep or they should be subjected to a partial rest cure. I do not wish to be understood as speaking against iron in these cases, but I have often wondered as to whether it acts in the way we have supposed.

DR. MARGARET T. SHUTT, Springfield, Ill.—I have seen two cases in which most pronounced eye symptoms developed as a

result of chlorosis. One of these cases was seen in New York City. The woman had been sent to hospital with the diagnosis of an intracranial growth, and had suffered for a long time from constant headache and increasing loss of vision. She was unable when first seen to count fingers at a distance of a few inches. The possibility of an intracranial growth was negatived by the history and by absence of focal symptoms, and examination of the blood showed a moderate chlorosis, and this was thought to be a possible cause of the constant headache and the double-choked disc. She improved almost immediately on rest, baths and the administration of iron and bone marrow. Within six weeks vision was almost completely restored, and the headaches disappeared long before this. About one year ago I saw at my home a young girl with a severe choroiditis. Her hemoglobin was reduced to 32 per cent. For a year she had been anemic, and had been treated persistently by her father with many forms of iron and intestinal antiseptics, and by rest, but the anemia seemed to be increasing. I suggested the addition of bone marrow, and whether it was an accidental occurrence or not I can not say, but within a short time she had improved very markedly in every way, and the hemoglobin percentage had increased to 80 per cent.

DR. W. E. DARNALL, Atlantic City, N. J.—So far as I have been able to observe these cases of chlorosis I have been impressed with the importance of the intestinal toxemia theory. Last summer an Irish girl of 22 entered the Atlantic City Hospital during my term of service. The hemoglobin was reduced to 20 per cent. Instead of the usual temperature of 100 or 101 F. her temperature ran between 103 and 104.5 F., which gave strong suspicions of the presence of some other disease. She was, of course, constipated. If she were allowed to go for one day without a movement of the bowel, her temperature, which might have been near normal, would suddenly rise to 104 or over. Repeated examinations of the blood were made to eliminate typhoid fever and malaria, and these were positively excluded. Strict attention was then given to the bowels, and an evacuation was secured regularly twice a day. As soon as this systematic treatment was established the temperature fell to normal, and in a comparatively short time she was completely restored to health, as shown by the blood examination.

DR. WAHRER—I do not think it makes very much difference, therapeutically, what preparation of iron is selected, for no form of iron is absorbed into the system unless it has been converted into the chlorid. Then, why not give the chlorid? Well, it spoils the teeth, produces constipation and blackens the stools, and if long continued, interferes seriously with digestion. While we give peptonate of iron and many other forms, I wish to emphasize the importance of selecting one kind that seems best suited to the individual case. Our success with drugs depends very largely on our special experience with them. I made no special mention of eye symptoms, referring only to the pseudo-exophthalmic cases as an example. There are many cases described as chlorosis which probably should not be classified in this way; nevertheless this term presents a well-recognized symptom complex. I wish to say earnestly, in conclusion, that it is seldom that one finds two people who look precisely alike, and in the same way it is probable that there are no two people who possess exactly the same constitution. I believe every disease or disease complex is modified by this individuality. It is the business of the physician to study this point most carefully and treat the individual who is diseased, as well as the disease. Were this not true, we would need but very few drugs to treat such diseases as are amenable to drug therapeutics. Here again comes in that indefinable but sterling quality every good physician must have to insure success, namely, common sense, or good judgment, or whatever term is best to know it by.

Primary Tumors of the Heart.—Traina has collected in the literature thirty-six primary tumors of the heart. In order of frequency they were myxomata, fibromata, and their combinations, myomata, pure sarcomata, lipomata, fibrosarcomata, angiomata and one chondroma. He describes in the *Clinica Med. Italiana*, xli, 2, a personal observation of a case of primary fibromyxoma.

IS THE ADENOID OPERATION A JUSTIFIABLE SURGICAL PROCEDURE;

AND, IF SO, SHALL IT BE DONE IN ACCORDANCE WITH THE RULES OF GENERAL SURGERY?*

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At first thought it would seem that to read a paper with this title before this Section is like raising up a man of straw and promptly proceeding to demolish it because it can make no resistance. I hope, however, to demonstrate that a paper with this title is neither untimely nor devoid of interest. The only logical answer to the query is an affirmative one; to which you will all mentally add, "We all operate that way"; and yet some of my observations have made me feel that in a good many instances this operation is not being done as though it were a justifiable surgical procedure, nor in accordance with the rules of general surgery.

Adenoid hypertrophy is a soft growth in the nasopharynx which interferes with nasal respiration and with the proper ventilation of the ear, and experience from the time of Meyer has taught it were better to remove it whenever symptoms of obstruction are present. Because they are easily reached for removal by operation—which operation must invariably be done in the dark—adenoids have frequently been removed in the most incomplete, and in many cases brutal, manner. And since they are done in the worst manner possible in many teaching clinics where Americans who are to be our future surgeons and specialists and members of our societies are taught, I am moved to relate to you some of my personal experiences in witnessing operations of this class done, not ten years ago, but so lately as a few months ago.

For many years German-speaking Europe was the great place for graduate study in the nose, throat and ear, on account of the wealth of material and the fame of the instructors; and of the audience before me probably the greater part have studied in German-speaking countries. As is well known to you all, the German is much more of an adept in the science of medicine and surgery, and especially in the pathology, than he is in the art; and at present most procedures are better done in America than abroad. It was, however, a surprise to me in revisiting a number of clinics to notice with what brutality, or at least so it struck me, the adenoid operation was done. While for obvious reasons I shall not give the names of the clinics or operators, the picture as presented is nevertheless an accurate one, and I have no doubt would be equally true of any number of teaching clinics.

Let me describe to you how I saw the adenoid operation done in five different foreign clinics, all of which have American students. In one the struggling child was taken in the arms of an assistant; the physician sat before the child, with an ordinary laryngeal mirror for a tongue depressor, without a mouth gag; the tongue was depressed, a Beckmann curette introduced behind the pharynx, one or two sweeps made, the child tipped forward and the operation was over. Plenty of blood came, but in the half dozen or more times that I saw the operation done in this way by this operator, and also by other operators in the same clinic, I saw no adenoids of any amount. The finger was not used to determine whether anything was left, nor was any at-

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Laryngology and Otology, and approved for publication by the Executive Committee: Drs. Emil Mayer, C. R. Holmes and G. H. Makuen.

tempt made to staunch the blood. The child shrieked loudly, was taken into an adjoining room, and the next child brought forward for operation.

In another clinic in the same city I saw the operation done in substantially the same way, only here the curette was used with such force that in one instance I saw a large portion of what looked like good healthy nasopharyngeal mucous membrane brought out. Here again no after-examination was made to determine whether or not the growth was removed.

In another clinic in another city I saw eighteen children operated on for enlarged tonsils and adenoids in one group. One after another they were seated around the room to shriek, and after they had all been operated on they were brought back for a second examination to see if any portions of adenoids were hanging in the pharynx or bits of tonsils remained. No cocain was used, but in this instance a tongue depressor and a mouth gag were employed, and the operations, while rapidly done, were more scientifically performed than in the two preceding instances.

In a fourth clinic the operation was done without anesthesia and with no attempt at mitigating the pain, yet from the surgical point of view aside from this I have no criticism to offer. Here I saw some twenty children operated on in one seance. While a nurse prepared a child for operation in one chair, the operator operated on another in another part of the room. There was good illumination with artificial light and a forehead mirror, and the instruments used were a most excellent mouth gag, tongue depressor and a Beckmann curette. The tongue was depressed, the curette skilfully used, and in three sweeps, one in the middle and one in each side, the growth was thoroughly removed, and an examination at once made with the finger to be sure that nothing was left. Here adenoids appeared in every instance. In the three preceding clinics I was always surprised at seeing how few adenoids were removed. As fast as the children were operated on they were all sent shrieking and spitting into an adjoining room; and you can imagine the pandemonium present when fifteen or twenty children, shrieking at the top of their lungs and spitting blood, were all assembled in one room. The skill of the operator, however, in this latter case admits of no question, and I am almost tempted to give his name.

In the fifth clinic, which was in England, adenoids were removed in the following manner: Nitrous oxid gas was administered by a skilled anesthetist, a nurse held the child in her lap, another nurse looked after the hands and feet of the patient, while the operator sat before the child, using a forehead mirror and artificial light. Anesthesia was usually complete in less than a minute, the tonsils were removed with the Mackenzie tonsillotome, and the adenoids with the Löwenberg curette followed by the Gottstein. The child's head was thrown forward, the bleeding was inconsiderable, the child was told to spit out the blood, and in about three minutes from the time of beginning the operation the child was able to walk into another room, where it was attended by a nurse until such time as it was able to go home, when it was given printed detailed directions for care for the next few days. For public clinic or hospital work this method seems ideal, since it is accompanied by an insignificant amount of blood as compared with an ether operation, is rapid and painless, and was used in this clinic for all but the very youngest children, whom it was deemed unsafe to anesthetize.

The methods in use in the first four clinics, which were large continental clinics, seemed to me absolutely brutal and incomplete; and I was told by a laryngologist of prominence that the operation itself had fallen somewhat into disrepute, as the growths frequently recurred. As you are all aware the German-speaking authors mostly advise the operation to be done without anesthesia, and now and then some of them claim that it is not painful. Even those who admit that it is painful seem to prefer to operate without anesthesia. Let me quote from several prominent authors: "The operation is painful without narcosis, and when very rapidly done can do harm to a very nervous child." But this author rather deprecates the necessity of employing narcosis, since, he states, the operation can be done in about three seconds. Another writer, an Italian, says: "I do not like narcosis, and only use it when I have children to operate on that can not be held rigidly enough, or when the parents object to its being done without. On the other hand, the pain is of so very short duration, and the operation lasts such a short time, that its risks ought not to be increased by the dangers of using narcosis." Another author states that the children do not realize much of anything until the operation is completed, and that good children have said after the operation that they have not suffered any pain. Furthermore, he states that the tissue contains few or no sensitive nerve fibers, and the child cries because he sees and feels the blood flowing out of the mouth and nose. He says that there are children so unruly, stubborn and obstinate that they can not be operated on except under narcosis. I noticed in my own observations that the children all cried much as they would have done in America; but I am glad to know that they cry, not from pain, but simply on account of the bleeding at the nose and mouth. There are signs of the dawning of a better day for these cases, as in a long monograph of recent date on adenoids, by a continental writer, anesthesia is spoken of as follows: "Local anesthesia is very incomplete and does not spare the child the psychic shock of the instruments and their introduction into the mouth. It is lymphatic, nervous, fearsome, delicate, sensitive children that have adenoids. The forcible holding, the light before the eyes, the large number of instruments, the forcing open of the mouth, the introduction of instruments into the pharynx, which is frequently too small for the instruments, the removal of portions of tissue—is all painful for the patient, as is also the scraping of the growth many times with the curette, which is perhaps not conformable to the pharynx wall, while the child is half suffocated with blood. This procedure frightens the child and causes a nervous shock. On the other hand, the operation is done more easily under anesthesia, and the danger of injury to neighboring structures is less." When I inquired personally among my continental friends as to why they did not use anesthesia for these operations they told me that the anesthesia was dangerous, the operation was short, the pain slight and it was not necessary. A friend of mine, of large private practice in one of the largest continental cities, told me, however, that he invariably used anesthesia, and frequently reoperated after the surgeons who did not regard anesthesia as necessary.

So much for operations across the sea. I am glad to state that, so far as I am aware, most American operators operate under anesthesia, and in a thorough manner. Yet no later than three years ago, in a paper read before this Association (I quote from the published proceedings, 1899), the finger-nail surgery was advocated

as the proper thing for the removal of adenoids, and the writer stated: "I have never seen or rather felt a case of adenoma which was not entirely removable by the finger-nail, provided the latter was in its normal condition and had not been injured or broken. . . . If not all removed, either the same day or the next, if possible, I will again enter the cavity and, if necessary, with the steel finger-nail remove every bit of the diseased tissue discoverable. . . . Two days after, I examine the region, and if everything is well I re-examine after a further period of about three or four days, when, if the healing has been perfect, the upper pharynx will feel smooth and soft, and there will be no danger of recurrence." The steel finger-nail—an instrument much better suited to the dark ages than to twentieth-century surgery—was shown, which was to be used whenever the operator's finger-nail was out of condition. In justice to the members of the Section on Laryngology of 1899, it must be stated that there was general dissent to the reader's proposition. I have also heard of other American surgeons who operate piecemeal for these growths.

The removal of the adenoid growth, if the growth is necessary to be removed at all, is an operation of moment to the person on whom it is done, and therefore should be done in as thorough a manner as possible, and with as little resulting shock. By the rules of general surgery as applied to this operation I mean: general anesthesia in children over two or three years of age, and in all adults in whom it is likely that cocain anesthesia will be insufficient, and proper preparation of operator and instruments, so as to minimize all the risks.

In older children and adults, where the nasopharynx is fully developed, the Schütz adenotome or one of its modifications can be advantageously used under cocain or even without any anesthesia. It is especially adapted for use where the adenoid is mainly central. I have been pleased with it and I know that others also have. I do not think it is adapted for very young children, as in these the pharynx is hardly large enough or sufficiently developed for its successful use. In these, as above stated, I prefer general anesthesia and the ordinary instruments. This adenotome has not yet acquired very general usage. I have never seen it used in any clinic.

The question of the anesthetic to be employed, whether ether, chloroform, bromid of ethyl or chlorid of ethyl, is one that must be determined in accordance with the experience of the individual operator. In most cases I personally prefer ether. Rapid, but careful, deliberate operating should be the rule, the operator being neither in haste to finish in any given number of seconds nor unduly prolonging the operation; and sharp instruments should be used, so that as much as possible the growth may be cut away rather than torn away, so as to leave a smooth cavity. The removal of the adenoids, not of all the structures to the spinal column, is what we desire. The pharynx ought to be covered with mucous membrane and not with fibrous connective tissue which will be a source of dry catarrh during the remainder of the life of its owner.

During the operation I believe in staunching the blood with tampons, since I see no reason for allowing the patient to lose any more blood than is necessary, although I read in all the books that staunching the blood is unnecessary.

Before regarding the operation as finished, determine by examination that the growth has been entirely removed. Keep the child in bed for a day or two following the operation, and do not feel in his nasopharynx at frequent intervals thereafter. If the operation was satisfactorily done no after-examination is necessary.

For the preliminary finger examination previous to operation and for post-operative examinations protect the finger with the rubber finger cot. The details of the operation, preparation, position, asepsis, instruments, etc., do not come within the scope of this paper.

Fortunately, unpleasant sequelæ in the way of sepsis or hemorrhage are almost unknown, considering the number of adenoid operations which are performed. I must, however, considering how difficult it is to properly disinfect or sterilize one's finger nail, protest against its use as a surgical instrument in these cases.

DISCUSSION.

DR. L. C. CLINE, Indianapolis—Two or three years ago I was severely criticised by some of the members of this society because I advocated doing this operation without an anesthetic. I believe the use of anesthetics is overdone in this operation, and only in the exceptional case is an anesthetic necessary. In the majority of cases as good results may be obtained without the use of an anesthetic, and we must admit that there is a danger in the use of anesthetics. Only a short time ago there were 18 or 19 deaths reported from anesthesia, and I am sure anesthesia is not without danger in this operation. We have all learned certain ways of doing operations, and when we become skilled in doing an operation in a certain way, that is the right way for us to do it. Other men may have as good success by some other procedure. My custom is, in the majority of cases, to have the child firmly held by an assistant. I do not have a great array of instruments to show the patient. I do not allow the parents to speak to the child about what I am going to do. I pick up my Gottstein instrument or a modification of it, and before the child realizes what has happened I have done my work. They cry a little afterward, but I would rather they would cry than to have to perform artificial respiration to bring them to after the use of an anesthetic. I have had that experience. We have to adapt our methods to the individual case, I think, and we are not justified in subjecting every case to an anesthetic. I would not use it in my own child, but I would treat it without an anesthetic unless an anesthetic seemed necessary. I believe a good, reliable, efficient operation can be done without even local anesthesia. Such a procedure may be described as brutal and all that, but if the adenoids are soft you can operate without much pain.

DR. J. H. MACDONALD, New York City—This operation is now a great deal in disuse and disrepute by the operators that have done it. The same preparations should be taken for it as for any other operation in surgery. The urine should be examined, the general conditions of the patient should be looked into, and the nervous condition of the patient and the age should be taken into consideration. Many of our clinics do not examine the urine, and do not even know whether the bowels are loaded, as happened in a case related by Dr. Cline. All these things are overlooked in what is considered the little operation for the removal of adenoids. This operation should be done with the proper technic, with the aid of nurses and intelligent assistants. There should be no struggling. Then the use of anesthesia would not be in disrepute. In regard to the choice of an anesthetic, I have, with Dr. Gleitzmann of New York, used bromid of ethyl in over 500 cases without a death. I have used the A. C. E. mixture and also chloroform. We are careful in the selection and the use of an anesthetic. We take the condition of the blood into consideration. We see that the child is thoroughly relaxed, that is, of course, in children over two years of age and who are not of a nervous temperament. That has been the teaching of Dr. Gleitzmann while I have been his assistant for over five years. In regard to ether, there is an unknown quantity. But if we go into the subject with the same care as if we were to do a laparotomy, there would not be half the deaths.

DR. SARGENT F. SNOW, Syracuse, N. Y.—I agree with Dr. Richards that this operation should be done as a surgical pro-

cedure. For about three years I have been trying the use of bromid of ethyl. I have also used other anesthetics, such as ether and chloroform and laughing gas. I must say that if I can have an assistant to hold the patient, who is familiar with the work and an anesthetist who is familiar with giving bromid of ethyl, I prefer it to all other anesthetics. With bromid of ethyl we get anesthesia in from 90 to 120 seconds, and sometimes in 60 seconds sufficient to amputate both tonsils and remove the adenoids. Almost immediately afterward our patient is conscious, with no sickness and with very little hemorrhage. This anesthetic is most excellent if the drug be fresh and our assistants acquainted with their work. The laughing gas in my hands so far has not proved all I wanted. The anesthesia I get from it is not sufficient. Perhaps my anesthetist has not pushed it far enough, but we do not get sufficient relaxation. I do like the patient in an upright position, which seems safe when we use bromid of ethyl.

DR. G. MCAULIFFE, New York City—I did not understand from Dr. Richards' paper whether or not he staunched the bleeding. As soon as the adenoid tissue is all out, I have not witnessed any bleeding.

DR. RICHARDS—I did not give the details of the operation, but my plea was for good surgery. The current number of the *International Journal of Surgery* contains an article in which my own views are stated.

THE DIAGNOSIS OF CARCINOMA OF THE LARYNX.*

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CHICAGO.

It is unfortunately true that ordinarily carcinoma of the larynx is not discovered until nothing but total laryngectomy offers the patient a chance for existence. One of the reasons for this is the fact that the diagnosis of the affection is often difficult and may be impossible for even an expert. Another cause for the lateness of recognition of the disease is the slight regard usually paid by the patients to the persistent hoarseness that may precede the graver manifestations for years as the only symptom. A third and avoidable reason for the unrecognized advance of malignant laryngeal tumors is the widespread indifference to the acquirement of even moderate skill in laryngoscopy shown by a great part of the profession. Many physicians treat patients with chronic hoarseness by general means and do not even inspect the larynx. I have known a patient to be sprayed for six months for supposed laryngeal catarrh by means of an atomizer and tongue depressor while his unseen carcinoma rapidly advanced to a hopeless stage. In another instance the laryngoscope was not used until the carcinoma had penetrated the laryngeal cartilages and appeared as a tumor in the neck. A glance at the literature of laryngectomy will show how late carcinoma of the larynx usually comes to the operator. Chronic hoarseness, especially in men past forty should make a laryngoscopic examination an imperative duty to all practitioners.

There are no general conditions with the exception of age and sex that are of use in determining the existence of carcinoma. Until the disease has advanced to the stage of dysphagia, extensive ulceration, sloughing and perichrondritis, it does not interfere materially with health.

Though most of the patients affected with the disease have passed their fortieth year, a large proportion of cases is seen before this period and even childhood is not exempt. This is shown by the statistics of Sendziak containing 479 cases of carcinoma of the larynx and that of E. Kraus with 187 cases, a total of 666. Five of these were found in the two first decades of life, 26 between the 20th and 30th year, 59 between the 30th and 40th, 170 between the 40th and 50th, 264 between the ages of 50 and 60, 110 between 60 and 70, 15 between 70 and 80.

Sex is of importance in determining the existence of laryngeal carcinoma, as the statistics of numerous observers show that men are from six to seven times more liable to the disease than women.

None of the symptoms of carcinoma are of much value in proving its presence, but they are of great use in arousing suspicion of its existence. In the majority of cases hoarseness is the sole evidence of commencing malignant disease for a long period, generally from one to three years. Chiari mentions a case in which hoarseness lasted nine years before other symptoms made their appearance and voice disturbance in his other cases extended over an average of two years before there was a change in the manifestations. This long period of comparative latency of the disease gives abundant opportunity for conservative operative interference and serves to differentiate carcinoma from the rapidly destructive laryngeal lesions of syphilis and tuberculosis.

The symptom of pain appears in the later stages of carcinoma, characterized by sloughing and ulceration. It is common to all the ulcerative affections of the upper larynx and therefore not peculiar to malignant disease though in some cases a prominent feature. It serves to exclude the benignant growths from consideration as these are never associated with pain. In carcinoma this generally takes the form of otalgia, occurs during swallowing or sometimes spontaneously and darts from the larynx to the ear, angle of the jaw or back of the head. Fraenkel states that it always appears in the ear corresponding to the side of the larynx affected, and that he has never found pain as a symptom of carcinoma where the epiglottis or aryteno-epiglottic folds were not ulcerated. Ulceration of the cords did not, in his experience, give rise to otalgia. Delavan regards lancinating pain as an important symptom, but his views are not shared by the majority of authors, who agree that it is usually a late and inconstant manifestation. Scheier found in 102 cases of carcinoma only 9 who complained of otalgia or pain radiating to the back of the head. In my experience pain is not a regular or prominent feature of laryngeal carcinoma.

The dyspnea of carcinoma ordinarily lasts many weeks or months before it becomes dangerous, but if perichondritis or other acute inflammatory complication occur it may come on suddenly, and whether its onset be fast or slow it almost invariably demands tracheotomy. A history of slowly increasing laryngeal stenosis in an old man is very suggestive of carcinoma. The stench that carcinoma gives to the breath is a characteristic but very late symptom, which may also occur in syphilitic necrosis of the cartilages.

It is thus evident that the patient's general state and symptoms offer but slight aid in making a diagnosis and that dependence must rather be placed on laryngoscopic and microscopic examination.

It is customary to divide carcinomata of the larynx into intrinsic ones; those originating on the vocal cords, ventricular bands, in the ventricle or inter-arytenoid or subglottic regions and extrinsic carcinomata; those seated on the epiglottis, aryteno-epiglottic folds, in the fossa pyriformis and on the posterior surface of the cricoid ring. Observers agree that carcinoma has its origin

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Laryngology and Otology, and approved for publication by the Executive Committee: Drs. J. F. Barnhill, C. R. Holmes and G. H. Makuen.

on the vocal cords much more often than elsewhere in the larynx. Moritz Schmidt says that the center of the membranous part of the cord, so often the seat of benign growths, is very seldom attacked by carcinoma, and states that carcinoma is never primary over the processus vocalis according to his experience and that of B. Fraenkel and others. The inter-arytenoid region, the favorite location of tubercular papillomatous granulations, is rarely the source of carcinoma, while next to the vocal cords the ventricular bands are its favorite seat.

Intrinsic carcinomata are commoner than extrinsic ones, the epiglottis being more frequently attacked by the latter than other parts, though Jurascz finds carcinoma of the posterior surface of the cricoid cartilage not rare. The fact that the vocal cords are the favorite seat of carcinoma would be of more diagnostic value were it not that they are a common point of attack for so many other morbid laryngeal conditions. Most of the benignant growths begin here and tuberculosis and syphilis are common in this location.

Carcinoma in its early stage may have a deep or superficial origin, growing in the submucous tissues or invading the structure of the mucosa itself. It often

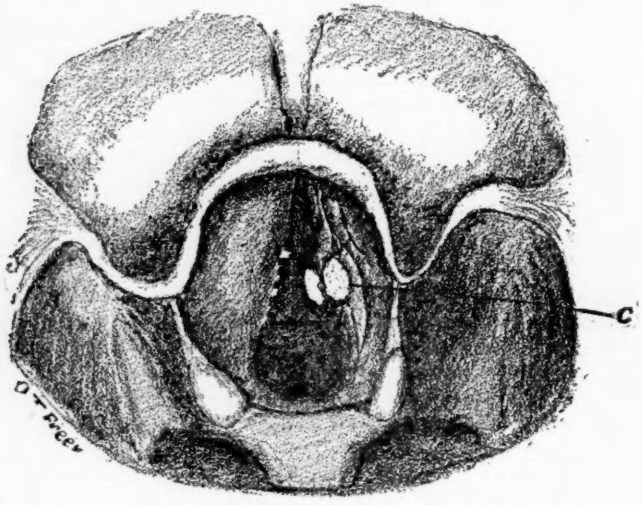

Fig. 4.—Polypoid carcinoma of the larynx. *c*, Carcinoma.

looks like papilloma and this resemblance may be due to the carcinoma tissue itself, when this is superficial and has the form of a hard verrucous, generally white rough thickening, the so-called pachydermia verrucosa. In other cases the carcinoma is of deeper variety and invading the submucous depths is covered with a growth of softer true papillomata which may precede its appearance for years, be removed again and again until finally the malignant tumor reaches the surface, appearing as a whitish yellow mass. In other cases the neoplasm is a mixture of true carcinoma elements surrounded by a zone of simple papillomata. In Figure 4 a number of accumulated papillary prominences may be seen fringing the edge of the right cord heralding the advance of the carcinoma across the anterior commissure and into the substance of the right cord. Moritz Schmidt has found that carcinomas that announce their coming to the surface by a growth of simple papillomata are apt to originate deeply near the perichondrium and to cause perichondritis early. The aspect of the surface of early carcinoma may strongly resemble that of papilloma; in fact, be of a truly papillomatous nature and so leave the most experienced observers in doubt. A piece removed for histologic examination may add to the confusion if too superficially removed. This is well shown in one of Chiari's cases. The patient had pieces excised for microscopic diagnosis five times during four years, the last piece only showing true carcinoma, the others being pronounced merely suspicious papillomata.

It is to the base of the neoplasm rather than to its surface that attention must be directed in the diagnosis of carcinoma from simple papilloma or other benign growths. Though there are even some pedunculated early carcinomata the base of the papillary carcinoma is generally broad, the mass of the growth seems to form a part of the larynx invaded, substitutes normal tissue by its elements and therefore rises but little above the surface while the superficial nature of the attachment of papilloma is striking. It is usually multiple while commencing carcinoma is solitary. The mosslike grouping of the long slender papillæ of papilloma forms a delicately regular structure in marked contrast to the broad, short and irregular proliferations of carcinoma. A typical papilloma is shown in Figure 8. I have removed successive crops of papillomata from the larynx of the patient from whom I made this drawing. The first operation was in 1897. The recurrences have all been typical papilloma.

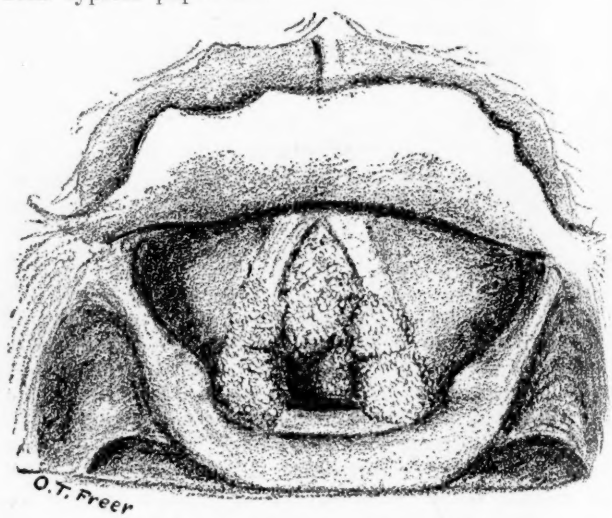

Fig. 8.—Papillomata of the larynx.

Virchow states: "If the papillary or aborescent outgrowth be seated on a narrow, superficial, non-suspicious base the neoplasm may be regarded as non-malignant. The base of the tumor constitutes the difference between the wart and the papillary carcinoma." Chiari says that the base of the papillary excrescences of carcinoma bleeds much more severely when these are cut away than does the base of a papilloma. The surface from which a papilloma arises is not altered or inflamed, while in the course of time an inflammatory area usually appears about the cancerous excrescence according to the rapidity of growth and consequent irritation of the tissues invaded. This is associated with edema of the mucosa due to the occlusion of vessels and venous stasis caused by the advancing growth. Ordinarily it is no hard matter to distinguish simple papilloma from carcinoma.

The form of tumor called carcinoma polypoides by Fraenkel is regarded by him and Semon as even more common than the papillomatous variety, but is less liable to be mistaken in diagnosis. It appears most commonly as a tumor of the cord in the form of a flat broad elevation. Benign growths grow in height and breadth, carcinoma more in depth, replacing normal tissue, so that carcinoma polypoides invades the glottis but little while it enters deeply into the cord. The surface of this form

of tumor is smooth at first or slightly irregular, its color grayish-white or even whiter than the cord itself. This condition is shown in Figure 4, where the button-like white epithelial nodules of the carcinoma are seen inlaid in the mucous membrane which is thrown into irregular folds by the carcinoma tissue underneath, while the outlines of the cord, ventricular band and ventricle are already effaced. The patient from whom I made this drawing was first seen by me, together with Dr. George Torrison, in October, 1901. His only complaint was of hoarseness of a year's standing. A series of illnesses prevented his seeing us again until January, 1902. The progress of the carcinoma in the interval is shown in Figure 5. We each removed a piece at this time for microscopic examination and typical carcinoma was found. The larynx was removed by the late Dr. Christian Fenger and it was discovered that the tumor, while showing such apparently small endolaryngeal progress, had already perforated the thyroid cartilage anteriorly. Figure 6 shows how the growth looked when the larynx was opened anteriorly and emphasizes how much more extensive carcinomata usually are than surface appear-

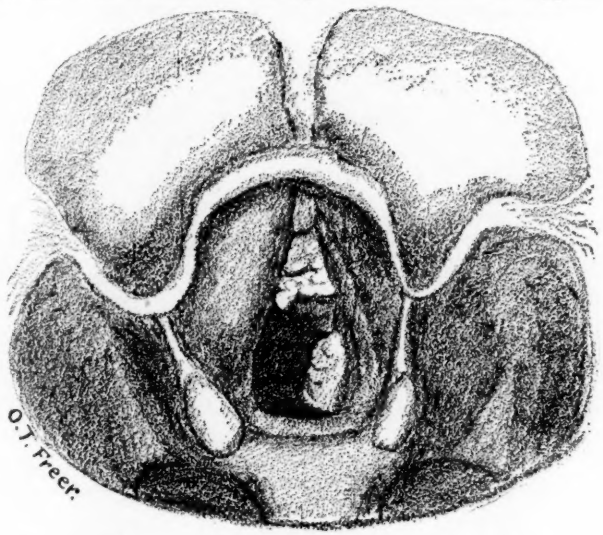

Fig. 5.—The same carcinoma as Fig. 4, three months later.

ances warrant. The left vocal cord in this case when first seen was not quite as movable as was the right, but even up to the time of operation retained a good deal of motion as the neoplasm had spared the arytenoid region and merely destroyed the membranous part of the cord.

The form of laryngeal carcinoma called carcinoma diffusum by B. Fraenkel appears most commonly on the cord and as a diffuse, superficial infiltration, which is distinguished with difficulty from other thickenings of the mucosa and is most likely to be mistaken for syphilitic or tubercular infiltration, pachyderma of the cords or hypertrophic forms of chronic laryngitis. The diffuse swelling enters into the healthy tissues without sharp border and though at first it resembles a mere thickening of the mucosa in time it becomes nodular and the color of the thickening variegated. Some places where the carcinoma tissue is superficial, are whitish, others hyperemic. The general outline of the cord and often its mobility are maintained. A diffuse carcinoma of the epiglottis and aryteno-epiglottic fold is shown in Figure 1. Its form is smooth and nodular while it merges insensibly into the surrounding tissues. Dr. E. T. Dickerman kindly allowed me to make a drawing of this larynx which was removed from a patient in his practice by Dr. A. D. Bevan, a perfect recovery following the operation.

Carcinoma of the ventricular band or aryteno-epiglottic fold is more vascular than that of the cord and contains less of epithelial elements, in accordance with its origin from mucosa covered with cylindrical epithelium. The color of the growth therefore is usually pink or deep red. Growth is also more rapid than on the cords and exuberant cauliflower excrescences commoner.

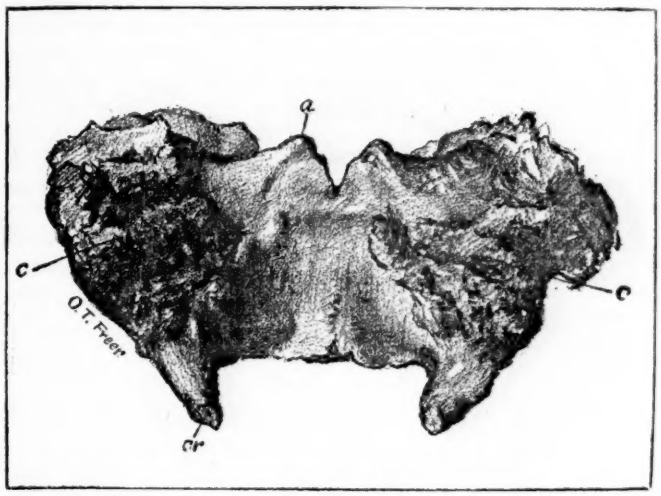

Fig. 6.—Carcinoma of Fig. 4, the larynx opened anteriorly after laryngectomy. *cc*, Bisected carcinoma. *cr*, Ring of cricoid cartilage severed. *a*, Arytenoid.

Very difficult to recognize in the earlier stages is carcinoma of the ventricle of Morgagni, or carcinoma ventriculare. This type of tumor for a long period remains hidden and pushes the cord, ventricular band and aryteno-epiglottic fold before it, interfering with the motions of the cord and finally forcing it into a posi-

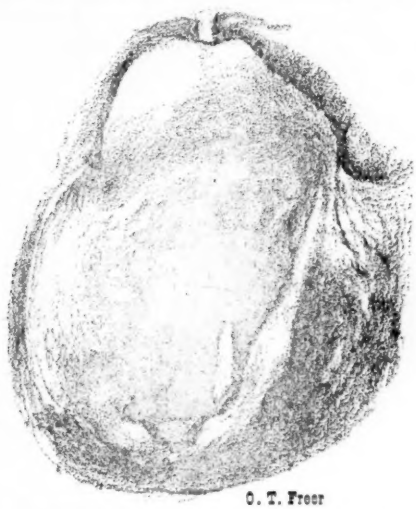

Fig. 1.—Diffuse carcinoma of aryteno-epiglottic fold and epiglottis.

tion of extreme adduction, so that it crosses the median line. The mucous covering of the bulging swelling is hyperemic, but intact for a long time. In the early stages carcinoma ventriculare is hard to differentiate from swellings of the ventricular band or aryteno-epiglottic fold. Deep-seated gummata, perichondritis interna of the thyroid or cricoid cartilage, benign growths of the ventricle, distention of the occluded ventricle may present similar appearances, so that diagnosis by inspection and microscopic diagnosis may both be im-

possible, as instruments can not readily get at the hidden growth to remove a piece.

When carcinoma occupies the posterior surface of the cricoid cartilage it presents great obstacles to diagnosis. All that may be visible is hyperemic swelling of the mucous membrane of the arytenoid region at its posterior part, with more or less interference with the motion of the arytenoid bodies. By the time that the carcinoma has advanced far enough upward on the back of the larynx to become visible it usually has attained extensive growth, so that perichondritis of the arytenoid

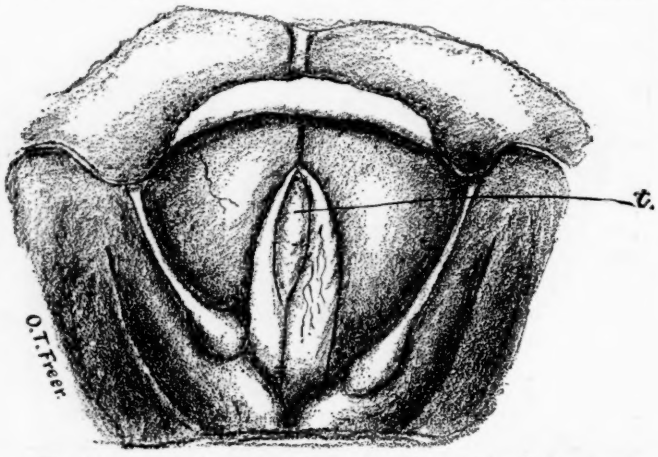

Fig. 10.—Paralysis of the crico-arytenoidi postici muscles, due to subglottic malignant tumor. *t*, Portion of malignant tumor pushing up between adducted cords.

cartilages is not uncommon as a complication. The chief symptom is dysphagia.

Carcinoma of the epiglottis usually occurs as a hard circumscribed tumor of a papillary or cauliflower form with constricted base, but is also found as a diffuse carcinomatous infiltration, as shown in Fig. 1. It may ulcerate early, so that destruction exceeds new growth, or form tumors so large that they prevent swallowing. The most marked symptom is dysphagia, and when the motions of the thickened epiglottis are stiffened or lost, food is apt to enter the larynx.

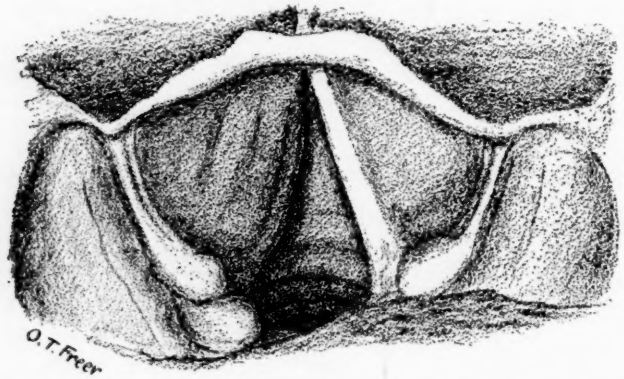

Fig. 15.—Syphilitic infiltration of right cord and ventricular band with fixation of cord.

A symptom of some importance in the early diagnosis of carcinoma of the larynx is retarded or lost motion of the cord. Semon regards this sign as of great value, but as there are other conditions beside carcinoma that quite often create it, it should not be overestimated. Schmidt says that the symptom will occur early if the tumor or its inflammatory surroundings have penetrated beyond the tissues of the cord fixing it to the neighboring parts but as long as it is confined to the cord loss of motion will not occur.

The motions of the cord are most seriously and often impaired by tumors that interfere with the movements of the crico-arytenoid joint, either by destroying the joint or by rendering it immobile by thickening the tissues about it, but neoplasms that have entered the muscles of the cord and transformed it into a rigid mass will also limit or stop its movements. When carcinoma is hidden in the subglottic space its first symptom may thus be fixation of the cord while the tumor may not be laryngoscopically visible.

Loss of motion of the cord in carcinoma is not only due to direct interference with its structure or the crico-arytenoid joint, but may be due to paralysis of the crico-arytenoideus posticus muscle. This is described by Moritz Schmidt as the result of a carcinoma in the sinus pyriformis, while Semon has seen double posticus paralysis with median fixation of the cords on account of the growth of a subglottic tumor. Figure 10 shows median fixation of the cords which seemed to me due to posticus paralysis caused by a large subglottic malignant tumor. The case was seen by me two years ago. The neoplasm when I made the drawing had penetrated the tissues outside of the larynx and trachea so

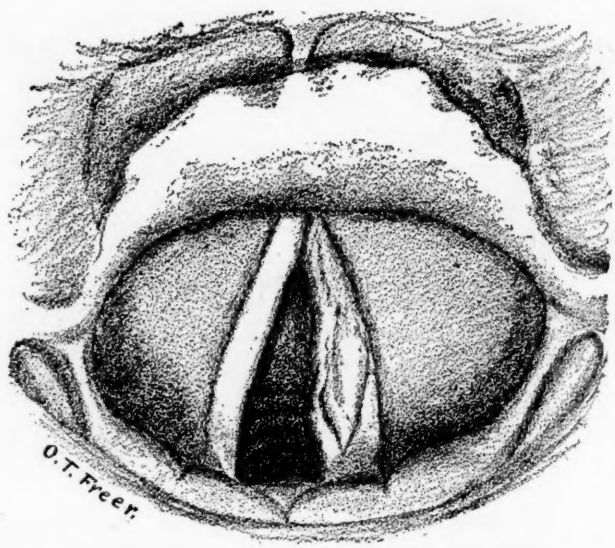

Fig. 11.—Tubercular ulceration of left cord with immobility.

that it caused pressure on the recurrent laryngeal nerves sufficient to destroy the function of the nerve fibers supplying the abductor muscles, a portion of the nerve which Semon has shown to be more vulnerable than the adductor part. A small portion of the growth may be seen forcing its way upward between the cords.

Both syphilitic and tubercular infiltrations may give rise to Semon's loss of motion of the cord as well as carcinoma. This is shown by two cases of my own. The first, Figure 15, had been considered carcinomatous infiltration by another physician, largely because of the fixation of the right cord accompanying a diffuse swelling of the cord and ventricular band. A suspicious white patch on the posterior pharyngeal wall on the summit of the infiltrated prominence shown in the drawing led me to a diagnosis of syphilis. Iodid of potassium produced complete recovery.

Figure 11 represents the larynx of a man, aged 63, who presented himself with complete immobility of the thickened left vocal cord with a shallow ulcer extending along its free border. Considering the patient's age and sex, carcinoma, possibly hidden in the subglottic space, was suspected. Examination of the lungs showed both

apices free from disease, but subcrepitant râles at the lower angle of the right scapula and the presence of numerous tubercle bacilli in the scanty sputum with the absence of anything like tumor formation as base for the ulcer convinced me that the disease was a tubercular infiltration of the cord.

Early carcinoma of the larynx is seldom hard to distinguish from tubercular infiltration, which is usually so characteristic that the laryngoscopist recognizes it at a glance. The typical pale, edematous, symmetrically swollen epiglottis and aryteno-epiglottic folds shown in Figure 13 can be nothing but tuberculous. In addition coexisting lung tuberculosis almost invariably makes the diagnosis easy. The usual symmetry of the lesions and pallor of the mucosa are characteristics of tuberculosis as opposed to the unilateral start and irregular, tumor-like growth of carcinoma, together with the deeper color of its surroundings and usual good health of the patient. The enormous frequency of laryngeal tuberculosis, however, often brings odd forms to view that have deceived the most experienced. Chiari pronounced tubercular a granulating ulcer which later proved to be carcinoma. Moritz Schmidt reports the

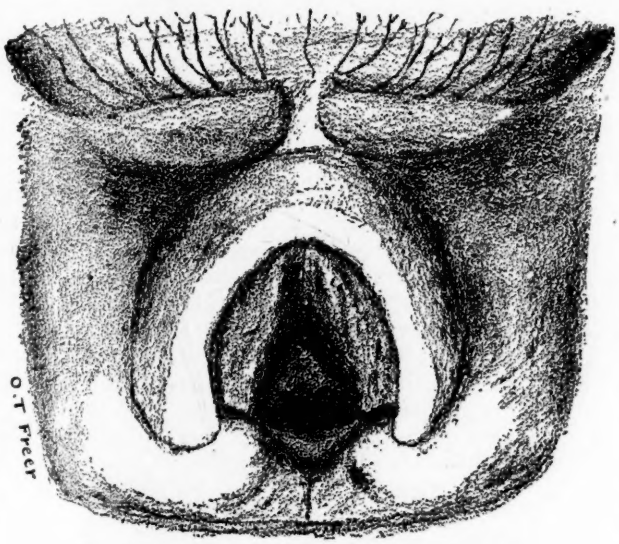

Fig. 13.—Tubercular infiltration of the larynx.

same experience. He mentions a case which Semon declared syphilis, Schmidt's assistant carcinoma, Fraenkel inflammatory infiltration, while Weigert's final microscopic diagnosis was tuberculosis. A tubercular infiltration of one cord may at times resemble carcinoma diffusum, papillary excrescences on ulcers with infiltrated base may simulate papillary carcinoma. This condition is common in the inter-arytenoid region, but here carcinoma very rarely has its beginning.

(To be continued.)

Honors for Brouardel.—On the occasion of the conferring of the title of "grand officer" of the order of the Legion of Honor upon Brouardel, his friends presented him with a souvenir medallion at a public ceremony, January 18. His achievements in forensic medicine, in hygiene and as dean of the medical faculty were reviewed by pupils of his who have also gained renown in these lines. The various medical and other societies of which he is or has been president were also represented among the speakers, as well as various departments of the government. The latter expressed the national gratitude for Brouardel's leadership in the present campaign against tuberculosis, to which he is now devoting almost all his energies.

UNIFORMITY IN MEDICAL PRACTICE ACTS.*

N. R. COLEMAN, M.D.
President of the Ohio State Board of Medical Registration and Examination.
COLUMBUS, OHIO.

It is but a brief period since a majority of the states enacted laws controlling and directing the practice of medicine, and yet this time has witnessed many and far-reaching changes. Some can recall when a person could, without special preparation or education, announce himself a physician and prey on the community without molestation; when medical colleges could graduate their classes after two courses of lectures of twelve weeks each; when a charter, irrespective of faculty, equipment or the fitness of its students, constituted a college; when the errant quack and vampire rode over the land in palace cars, robbing the people without let or hindrance; when the self-constituted midwife infected the mother or mutilated the child, and there was none to stay her course of death and destruction. But thanks to the labor, energy and wisdom of medical men the darkness and melancholy of those days have passed, and the brightness and hopefulness engendered by education, skill and law, are about our path to-day. There are now but few and isolated areas in our country over which the potent arm of the law does not extend protection by defining who shall guard the lives and health of its inhabitants. It is true that many of the states and territories have crude and imperfect laws, yet these are far better than no laws at all, and serve as foundations upon which the more earnest and enlightened members of the profession can base their efforts to dignify and elevate their calling and protect the people from fraud and imposition.

The laws that have been enacted do not seek to deprive people of their choice in the selection of a physician, or of their preference for any school of medicine whatsoever, but they do reserve the right, and wisely so, to determine the fitness of the physician in regard to educational qualifications and moral character. Their aim is to furnish, in higher degree, intelligence and medical skill exerted for the saving of human life and for the relief of suffering. One is often aroused to varying degrees of amazement, disgust, indignation or pity at the selfishness and greed which seek to weaken and overthrow such beneficent provisions. The legislative lobbies are thronged, not only by the unqualified, the dissolute, blatant quacks and the exploiters of new and strange arts of healing—all seeking the destruction of medical laws, but in some instances these have been joined by students in medical colleges seeking exemption from state examinations. No college claiming the facilities necessary for imparting an efficient medical education can tolerate such action by its students, and the students themselves are blind to their future interest and ignorant of the history of the medical profession when guilty of so gross an error.

Examinations are not burdens peculiar to physicians. All professions and callings, governmental and municipal departments, require recorded proof of the qualifications possessed by those seeking positions of trust. The moral support in the community educated to the need of these and similar requirements, will, ere long, enable the supporters of medical legislation to utilize some of the energies required to maintain our present position, in extending and perfecting our system of laws. To these laws must be given the credit of accom-

* Presidential address before the National Confederation of State Medical Examining and Licensing Boards, Saratoga Springs, N. Y., June 9, 1902.

plishing the rapid and much desired reforms in medical education which have been indicated, and their abrogation would result in a lapse into much of the old-time disorder and neglect from which we have but just arisen.

The most urgent need, just now, it seems to the writer, is that a united and even front should be presented to the enemies of an enlightened and well-qualified profession. There is the old simile of the chain—not stronger than its weakest link. To attain our result we do not have to weaken the stronger links, but certainly we must strengthen the weaker ones. One state should not become the dumping-ground of another's refuse. We must get together; become embued with the same high ideals; extend the helping hand, and then hold on. It is urged by some that it is not necessary that the same high degree of efficiency in the education of physicians be extended to all parts of this country; that those who practice in the more sparsely settled and less cultured sections do not require so thorough an education as those located in cities and older communities. The fallacy of such argument lies in the assumption of unequal valuations of a life under mere circumstances of location, for experience has demonstrated that remoteness from counsel, skilled nursing and improved armamentarium and supplies requires a higher degree of natural and acquired ability to cope with accident and disease than when such aids are available. The average severity of illness and accident is too uniform to invalidate the above conclusion. The inference, then, is that it is essential that the various medical practice acts of the states and territories should be uniform in character and administration, for the greatest good to accrue to the greatest number. If this be so, let us briefly consider the important points of the various laws in which there seems the greatest discrepancy in application; for to this organization is given the opportunity of exerting the most direct influence toward uniformity in the scope and administration of medical legislation throughout the United States.

NECESSITY FOR A MORE UNIFORM DEFINITION OF THE PRACTICE OF MEDICINE.

This is the first point to which I would call your attention. There is no one subject connected with medical practice acts which has given rise to so much controversy and contention in the courts, causing increased expense and annoyance to those charged with the administration of the laws, as a definition of the practice of medicine; and with reason, as most of the violations of these laws and the prosecutions which follow involve this very question. This definition in every law, with, to the best of my knowledge, scarce an exception, has sometime proved defective when tested in the courts, and has demanded amendment; and to-day few of these definitions are adequate to successfully meet all the methods devised for their evasion. With due consideration of the accumulation of legal opinions given during the past fifteen years by the various courts throughout the country, and of the extensive and varied experiences of the state boards, it would seem that now a definition might be framed in terms sufficiently broad and explicit to include all possible violations of this provision. The need of such a definition is too obvious to require discussion. Therefore, your presiding officer would suggest the appointment of a committee composed of one member from each state, district and territorial board of medical licensure, to frame a definition of practice of medicine; and that such committee report the result of its labors at the next annual meeting of this body. Such a report would embody the full amount of our knowledge on this most important subject, and will be of permanent value as a standard by which old laws may be bettered and new ones framed, thereby leading, in time, to the greater uniformity and efficiency of all medical practice acts.

MINIMUM STANDARDS FOR ADMISSION TO MEDICAL COLLEGES.

During the period just preceding the more general enactment of medical practice acts there were admitted to medical colleges the greatest number of students devoid of the necessary preliminary education ever known in our medical history. A spirit of commercialism was then rampant among many of the medical colleges, and has been one of the greatest curses with which the medical profession has had to contend. In fact, it was a leading factor in establishing medical legislation, as the earliest efforts in that direction all empowered the boards to determine the standing of colleges. From a careful examination of state laws and of information sent out during the past few years by the medical colleges, one may believe that there is a rapid and substantial advance in the requirements for admission to medical courses; and this has seemed more notable and uniform since the minimum standard for entrance to medical colleges was adopted by this organization in 1899. This standard has been enacted into law, in its entirety or in part, by a few of the states and has been conformed to by some of our colleges. It is sufficient for immediate demands, but in a few years it should be made more stringent. In the meantime there is plenty of work to be done in securing greater conformity to its provisions. A number of states require only a common school education; others have requirements so vague or ambiguous that their exact determination is difficult. Such conditions are not to the best interests of either the public or the medical profession. Besides being a source of confusion and perplexity, they tend to foster commercialism among such institutions as can legally admit students upon a low standard of qualifications. As stated before, we may not be ready for the general adoption of the highest and best standard, but such as we have—and it is far from an insignificant one—let us uphold and extend till the country is a unit in demanding at least so much as a minimum requirement.

CURRICULUM AND TIME OF STUDY.

A subject which is exciting great interest and much discussion concerns the curriculum in colleges and the time of study, for recent requirements have greatly complicated what was once a very simple question.

Some years ago, when the requirements were three years of study with two courses of lectures, the instruction consisted of lectures on the fundamental branches repeated year after year, and the time requirement was met by study under a preceptor. Under such regimen a student could pursue but a small part of the course of study now required, yet these men, with a few facts well learned, have generally discharged their professional duties in an acceptable manner and have prospered in their business. Thirty years ago colleges were not very numerous and were well attended. This gave rise to a belief that it was a lucrative business to conduct a medical college. A charter was easily obtained, and so-called medical colleges sprang up all over the country in astonishing numbers. Requirements existed as much in the breach as in the observance, the only one uniformly exacted being that dues should be paid. These conditions did not obtain in all our colleges, but in far too many for the public good or the honor of the profession.

With this brief review of the courses existing in the past we turn to those which obtain in the present. In examining the various catalogues issued by medical colleges one is astonished to find the wide variations in preliminary requirements and in courses and time of study. Special influences, as the age, location and resources of the institution, modify in marked degree both requirements and curriculum. The time of study now required by most colleges is four years, during each year of which time the student must attend a full course of instruction extending over a period of at least six months. With such a statement laid down let us see how it may, and possibly often does, operate. The student enters the medical college wholly ignorant of medical technicalities, and, from this obstacle, for the first six months his progress in medical subjects is almost nothing. At the end of the term he engages in some other vocation till the opening of another year, and so he may be employed during each interim. At the end of the four courses his diploma is granted upon what is in reality but little over eighteen months of real study of medicine, instead of the four years which is presumed. State medical examining boards should make a clear and specific definition of what is meant by four full years of study and by four full courses of lectures each in four separate years, and then exact it from all who apply for examination.

Would it not be more definite for state boards to require students to be absolutely engaged in the study of medicine for a period of nine months in each of four separate years, and that during each of these periods at least six months must be spent in a reputable college, designating the number of hours to be spent in laboratory and class-room. Such specific statements could not admit of doubt or misconstruction.

ADVANCED STANDING.

The allowing of advanced standing to graduates in arts or science, in dentistry, pharmacy or veterinary medicine, is a subject to which much thought has been devoted and concerning which many suggestions have been evolved, but all seemingly without reaching a satisfactory conclusion.

It has been one of the chief aims of state boards to promote and encourage, in all honorable ways, the most complete educational training before entering upon the study of medicine. For this reason they have allowed the college to at once advance a student with a degree in arts or science to the second year's course, provided the student has made a satisfactory examination on the first year's curriculum. Such students have been well trained to mental efforts and habits of study which should enhance their progress in the study of medicine; on the other hand, the courses in anatomy, materia medica and physiological chemistry are not usually given in literary institutions with that exhaustiveness of detail demanded in the technical school. In the opinion of many, of whom I am one, these factors quite fairly offset each other, and that it is equable and just to allow advanced standing to graduates of literary colleges which require four collegiate years of nine months each and which include in their curriculum the branches taught in the first year's work of a first-class medical college. In the case of graduates in dentistry, pharmacy and veterinary medicine advanced standing should be withheld, unless their literary training is equivalent to that leading to an A.B. or B.S. in course, and their work has included that of the first year in a first-class medical college; because the mental training of their technical instructions alone would not warrant such advanced standing.

It is to be deeply regretted that some states still admit undergraduates to examination and so to the practice of medicine; and it is sincerely hoped that they may soon find opportunity to abandon this practice.

NIGHT SCHOOLS AND SUMMER SCHOOLS OF MEDICINE.

Another disturbing factor appears in the summer schools and night schools of medicine. These, with scarce an exception, have been inadequately equipped to acceptably discharge their duties as educational institutions. The only excuse for their existence being to serve as makeshifts, by which those unable to devote themselves to the requisite time, attention and study demanded by the regular course, might worm their way into the medical profession. Such institutions should not be recognized by state medical boards. A most serious objection to their recognition is the limitation of work and of opportunity imposed by the hours utilized. The extensive curriculum now demanded in good colleges requires for its fulfillment ten or twelve hours of absolute labor each day during four yearly sessions of from six to nine months each. Moreover, part of the work can not be so successfully prosecuted by artificial light. One of the most essential features of a medical education is a thorough clinical training, and this is almost wholly impracticable, as cases for instruction can not be utilized at night without entailing detriment and unnecessary hardships upon patients; and few hospitals would tolerate such disquieting and unseasonable intrusion. If the student has been employed for eight or ten hours in some other vocation, he requires rest and is in no physical condition to spend half the night listening to lectures, working in laboratory or dissecting room. Such an attempt must lead to either a neglect of business, failure in studies or physical disaster. Summer schools labor under the disadvantages of high temperature, the absence of many skilled instructors from the cities, the falling off of clinical material, the difficulty in prosecuting thorough anatomical work, etc. I may say, in passing, that the Ohio State Board has never recognized the work done in any night school, and in but one instance has it admitted that of a summer school.

The objects of medical legislation include the fullest protection to life and the amelioration of suffering. To boards are given the execution of certain provisions, but they should also ever strive to act in accordance with the purposes and intent of the law. To recognize schools lacking in the essential facilities for efficient instruction in medicine would surely violate the spirit which prompted the enactment. With splendid colleges all over this country, possessing the best equipment and strong teaching faculties, offering thorough medical training at but nominal expense, there is no necessity or excuse for such institutions as night or summer schools of medicine.

Both college faculties and examining boards have constantly to contend with too great variations in courses and times of study, and they would also gladly welcome some basis upon which to establish a more reasonable degree of uniformity. I would, therefore, again venture to suggest that a committee be appointed from this body with instructions to report at the next annual meeting, a curriculum and time of study which shall embody such features as, in their opinion, are demanded by existing conditions, and that the Association of American Medical Colleges be invited to be present when the report is made and to join in whatever discussion may follow.

EXAMINATION BY STATE MEDICAL BOARDS.

There is the widest range of variation in almost every leading point connected with the examinations made by

the state boards. The seven fundamental branches, of course, receive recognition from all, but when it comes to the special studies to be included in the examinations, such as pathology, bacteriology, biology, histology, neurology, psychiatry, gynecology, pediatrics, physical diagnosis, urinalysis, dermatology, rhinology, otology, laryngology, ophthalmology, venereal diseases and medical jurisprudence, they appear in all proportions. In the opinion of the writer there should be nine lists of questions, to include the seven fundamental branches, embodying in practice one or two questions each on pathology, neurology or psychiatry, bacteriology and medical jurisprudence, and, with surgery, questions on some of the following branches: dermatology, rhinology, otology, ophthalmology and surgical gynecology. There should be a list of ten questions in physical diagnosis, including urinalysis, making the eighth list, and five questions each on medical gynecology and pediatrics, making the ninth list. It is also of the greatest importance that a practical clinical examination should accompany and supplant, in part, the purely theoretical tests. No one can question the greater efficiency and justice of such practical determinations applied to either the recent graduate or the more experienced practician. Practical examinations of sputum, urine, blood and pathologic specimens can always be made available, and the clinical inspection of patients should be made possible and utilized. Some states do not indicate the branches on which their examinations are made, beyond the statement, "such as the board deems advisable"; others (as Virginia) prepare a list of questions, out of which the applicant can select and must answer a given number. So far as our observations have extended the questions given by all the various boards are fair ones, yet the examinations of some boards are more difficult than those of other boards. This is illogical, as the same skill should obtain in the examination and treatment of cases, irrespective of geographical location. There can be no adequate reason why the questions should not be more uniform in scope and severity. This change can be accomplished by devoting some time, at each annual conference of the state boards, to outlining and agreeing upon the extent and character of ensuing examinations. Such plan is feasible and should receive the earnest consideration of this body.

Adequate time should be given the applicant to make a full and complete answer to each question. Rapidity of thought and of its expression vary greatly, therefore the time allotted should be sufficient to meet the requirements of the slower thinker and writer. We find that some boards give but one hour in which to answer a list of ten questions, others an hour and a half, two, and up to three hours. It is evident to anyone having had experience as an examiner that no applicant can answer the average list of ten questions in one hour and do himself justice. Some may do quite well in two hours, but others, as proficient in knowledge, may have to curtail their work. We believe that three hours should be allotted for answering each list of ten questions, and that three such periods should be given each day until the examination is completed.

GRADING OF MANUSCRIPTS.

The grading of papers is one of the most important and exacting tasks which confront the examiner. It demands keen insight, mature judgment and ripe experience. While it may be true that no two examiners would place the same value upon each answer, still one is impressed by the uniformity with which a high or low grade applicant has been graded by various examiners. However, there are some points on grading to which your attention is asked.

Questions susceptible of being answered by yes or no should rarely, if ever, be used by examiners. It is very seldom that an applicant should receive 100 per cent. in any branch. Absolute perfection, implying that the answer embraces all that could be said on the subject, is almost impossible under the conditions attending a general examination. Some boards refuse a license to all below a certain per cent. in two or more branches; other boards when the general average falls below 70 per cent. (Massachusetts); and still other boards when the general average is below 75 per cent. (Ohio and other states). One state board (Washington) grants license to practicians of ten years' standing who attain an average of 70 per cent. or over; all others must average at least 75 per cent. We might go on showing more or less of variations among the majority of examining boards, but a basis of uniformity is more to our purpose. It is much easier for the applicant to attain a general average of, say 75 per cent. in all his papers than to reach 75 per cent. in each branch; yet, when the examination applies to both old practicians and recent graduates the basis of a general average possesses more of fairness, inasmuch as the man of experience should be proficient in the practical branches, so raising his grades, while the man just from college would maintain his standing by proficiency in the more technical branches. Every systematic method of grading has, doubtless, special advantages and also disadvantages. Our aim should be to establish one, the application of which will be attended with the highest degree of efficiency and justice. While there are advocates for each and every method of grading, may we not at least tentatively adopt a uniform standard—let us say a general average of 75 per cent., embodying as it does less of hardship and more of justice under the present condition of transition.

THE DISPARITY IN THE LAWS CAN BE OVERCOME.

The disparities in the medical practice acts and in their administration which have been referred to may, at first thought, seem difficult to harmonize, but such is not the case. The solution of this condition can be effected by the same means that has been applied to so many problems of modern existence, i. e., co-operation. The individual views of each board and of each member must be merged into the corporate views of a strong organization. Let the members of the confederation, after efficient investigation and exchange of views, agree to a uniform course of action, and in a very few years our laws would be in perfect accord. Any course that might be so adopted must be proved by strict adherence to its provisions, and as defects appear they should be remedied so far as possible. The result of such action by the confederation would be a stimulus to all reputable medical colleges to adopt uniformity in standards of preliminary education, curriculum, time of study, length of terms and methods of teaching. Their good standing would be jeopardized by falling below such standards. Colleges would thus have a basis upon which to establish their equality as educational institutions. Medical students would be greatly benefited by being placed upon the same legal standing in all colleges and states. Add to these conditions uniform state examinations, as hereinbefore outlined, and we have all the factors which are absolutely necessary to secure interstate indorsement of medical license. It is only by this perfected uniformity that such reciprocal relations can ever be established. The evolution of the process will

require time, as the ideas must be inculcated in the minds of legislators and civic officials as well as strongly ratified and upheld by the profession. The discouraging features in this great work are diminishing year by year. The beneficial effects of medical laws are more generally acknowledged and appreciated; there are fewer efforts to abrogate their provisions; the swindler and impostor have lost much of their power and influence, and the profession has developed strength. While the natural tendency of all laws is toward uniformity of application, we must not be content to simply hold aloof and criticise, but lend our best efforts toward its more speedy accomplishment. One of the greatest achievements in this work, already accomplished, is the uniting of the leading schools of medicine to secure necessary legislation. To-day we have the intense satisfaction of seeing them working side by side, imbued with the same high ideals of professional excellence and upholding the same educational standards. Can anyone say this is not substantial progress or doubt that much of what has been attained is due to this united action? Conditions change, and our modes of action must change with them. The demand now is for physicians and surgeons, not men imbued with sectarianism, pathies, fads or hobbies, but men of education, skill and high moral character; men that can meet upon the same plane and discuss matters with no other aims than the highest possible good for patient and public and the greater success of the medical profession. We meet here to-day, not for contention, but confederation. Our cause is just, its aims elevating. The efforts put forth to elevate the standard of scholastic attainment and personal character of the physicians and to protect the people from ignorant pretenders and swindlers, are not only making the profession stronger and more efficient, but raising American physicians in the esteem of other countries. Though the existence of this organization embraces but little more than the brief period of eleven years, its endeavors have been of great and far-reaching value in bringing about many of these beneficial results.

There is much yet to be accomplished, calling for our best judgment and earnest efforts, yet there is no one conversant with the history of medicine but must admit that a notable and substantial advance, from both scientific and sociologic standpoints, has marked American medicine during the past fifteen years.

While thoroughly conscious of the imperfection and inadequacy with which I have attempted to present some of the defects in our laws and in their administration, I earnestly trust that calling your attention to them may result in means for their correction. If, in considering some conditions, I may seem to have judged harshly or spoken inconsiderately, I must plead in extenuation my deep interest in the end to be attained.

Thanking you for the honor you conferred by making me the presiding officer of the confederation for the past year, also for the privilege of addressing you, I would wish you, both as an organization and individually, a year of usefulness and prosperity.

Sugar as an Exclusive Diet.—The Paris *Temps* has been publishing a series of articles on this subject. It recently received a letter from an engineer in South Africa, J. Jacquier of Johannesburg, who stated that during the late war he was caught between the two armies and was compelled to remain in his hiding place for six weeks with no food except a supply of sugar. He had six rabbits with him, and he fed himself and the rabbits exclusively with sugar mixed with sawdust. All thrived on it and the rabbits grew fat.

A NOTE ON MALARIAL VERTIGO.

THOMAS J. MAYS, A.M., M.D.
PHILADELPHIA.

That vertigo or dizziness develops in the course of malaria has been recognized occasionally, but the fact that this symptom may become so markedly accentuated as almost to claim for itself a distinct place in the nomenclature of disease, has been noticed by very few of our recent medical writers. Inasmuch as a number of such cases have occurred in my experience, it seems fit that I should briefly call attention to this important subject.

Malarial vertigo has been described by Triantaphyllides,[1] who states that vertigo may be intermittent or permanent, or merely a condition of dizziness, or it may be associated with other neuroses, but in a number of cases which he relates the vertigo could be attributed only to the malaria. There was no anemia, neurasthenia, dyspepsia, or any other manifestation of malaria, and the vertigo could be cured at once by hypodermic injection of large doses of quinin for four or five days. He attributes it to the probable alteration of the solar plexus by the malaria, similar to the gastric vertigo described by Trousseau. He states that the vertigo usually ceases when the patients recline, although in one of his cases compression of the sciatic and other nerve trunks induced the vertigo even when he was reclining.

Of the exclusive neurotic nature of this affection, as observed by Triantaphyllides, there is not the least doubt, as is well demonstrated by its principal symptoms, which will be considered in the following order:

VERTIGO.

This is the most prominent symptom of this disorder, and generally draws the patient's attention to his condition. In apparent good health he finds that his gait suddenly becomes insecure and unsteady, and he staggers as if he were suffering from alcoholic intoxication. In some of my cases this manifested itself so markedly that the patients fell to the floor, but in no instance was consciousness dimmed in the least. The attacks usually come on intermittently and during the day—in no instance have they appeared at night.

HEADACHE AND BACKACHE.

Headache is present in nearly all cases and is generally persistent. It sometimes alternates with a lightness of the head. There is frequently a fulness in the region of the occiput and neck.

Backache seems to be pretty constant in most cases and in some is of a very severe character. It is usually located in the lumbar region.

DEPRESSION OF SPIRITS AND EXHAUSTION.

Persons who in health are active and full of life gradually, and without good apparent reason, become moody and depressed, and tired and exhausted. The tiredness seems to be concentrated on the lower extremities below the knee, and is not relieved by sleep, since it is more prominent in the morning after rising than at any other time.

The bowels, as a rule, are costive, which is in all probability due to torpidity of the liver—a common condition in all forms of malarial poisoning.

HISTORY OF MALARIA.

In all the cases that came under my observation there was a well-defined history of intermittent fever, which had been more or less latent for some time, per-

1. Grece Medicale, iv, 6 to 9, as summarized in THE JOURNAL American Medical Association, May 17, 1902.

haps for years, before the appearance of the vertigo. In no case was the latter immediately preceded by a paroxysm of fever and ague. The heart and lungs were free from physical signs, and the pulse, respiration and temperature were normal.

Vertigo, in as severe a form as these attacks usually show themselves, leads to a great deal of anxiety and fear on the part of the patients and their friends, owing to the knowledge that this affection may pave the way for the outset of more serious nerve trouble. But if eye strain, gastric disorders, Meniere's disease and other prominent causes of vertigo, can be eliminated, and a clear account of previous malarial disorder be elicited, a favorable prognosis may at once be given and verified by appropriate treatment.

TREATMENT.

No remedy that I have administered in this disease acts more favorably and promptly than quinin in doses large enough to produce ringing in the ears. Indeed, the attacks of vertigo may develop while the patient is taking grain doses of the drug, but will vanish as soon as the dose is increased to eight or ten grains every three or four hours. Quinin will be more effectual when it is combined with strychnin, blue mass and capsicum than when given alone. The usual formula employed is:

℞. Quininæ sulphatis 3iiss
Pil. hydrarg. .....gr. iv
Pulv. capsici .....gr. ii
Strychninæ sulphatis .....gr. i

M. Ft. capsulas No. xxxvi. Sig.: One capsule four or five times a day.

After the attacks have subsided smaller doses of quinin are to be administered in connection with strychnin and iron, interspersed occasionally with a dose of blue mass or calomel, the aim now being to enhance the digestive powers and to maintain the strength of the body. Any fresh manifestation of vertigo is to be counteracted with the larger doses of quinin and its combination given in the above formula.

Special Article.

VACATION NOTES.

G. FRANK LYDSTON, M.D.

Professor of Genito-Urinary Surgery, Medical Department, State University of Illinois; Surgeon to St. Mary's Hospital.

CHICAGO.

(Continued from p. 311.)

4. SYDNEY—NEW SOUTH WALES.

In a previous communication I qualified my enthusiastic description of the beautiful skies and placid seas of my Australian trip by stating that its serenity did not continue throughout. Between New Zealand and Sydney is a stretch of ocean which, for pure, unadulterated "cussedness," can not be excelled. When a sea captain of forty years' experience says that he is usually sick in crossing that bit of water, you would better take your troubles philosophically. Mark Twain has much to say of the extreme heat he experienced on his trip in "Following the Equator." He arrived in Sydney a week earlier in the spring than I did, and claims that the city was very hot, so hot that the doorknobs, which "melt in midsummer," were quite "mushy." I wonder what was the matter with Twain. I found flannels and an overcoat indispensable between Auckland and Sydney, and not uncomfortable in the latter place.

Having been forewarned as to what I might expect from Sydney Harbor, I was delighted, but not surprised, by the beautiful panorama which unfolded itself after our good ship rounded Sydney Head. Mere description could not possibly do the harbor justice. Completely landlocked, and presenting smiling bays extending in various directions, Sydney Harbor is peculiarly endowed both from the standpoint of scenic beauty and commercial facilities. It is well fortified, and a hostile fleet would have great difficulty in entering, even though it might possibly get near enough to drop a few shells into the town. It may be discourteous in me to say it, but the most beautiful feature of the harbor as I first saw it was Old Glory, flying from one of our Philippine transports.

It seems strange that a magnificent city of half a million inhabitants should have sprung up so far away from the great centers of civilization, and one must really see Sydney to fully appreciate the fact. With its clean streets, splendid public buildings—all in the best repair—and wonderful botanical and zoological gardens, this city may well be content with its comparative isolation. That the higher culture has not been neglected is shown by its magnificent art gallery, which contains a collection of paintings that any metropolis might covet. The only evidence that Sydney is not strictly up to date is the puff, puff of its dummy tram engines, and the absence of automobiles from its streets. The steam dummy and electric trolley on the same track are somewhat incongruous.

Medical Sydney is fully in keeping with the city's up-to-dateness in other respects. The Medical Department of the University of Sydney ranks with the best American schools. It was founded in 1883 and constructed at a cost of £80,000. The handsome structure is of the same style of architecture as the main university building, though, perhaps, not so ornate. The ground floor is devoted chiefly to the laboratories and practical class rooms of the departments of physiology and pathology, materia medica and medicine, and to a large anatomic museum. This museum, which was founded almost immediately after the commencement of the medical school, contains large numbers of normal and morbid specimens, and is an invaluable adjunct to the teaching appliances of the various departments. On the first floor are situated the dissecting room, measuring 51 feet by 41 feet, and five lecture theaters, of which the theater of physiology is the same size as the dissecting room, while the others are 45 feet by 36 feet, and each capable of accommodating about 200 students. Attached to the lecture room are the necessary preparation rooms. The basement contains, in addition to the caretaker's quarters, a laboratory for medical jurisprudence, and reading and luncheon rooms for the students. By the liberality of Lady Renwick, Dr. Sydney Jones, Dr. George Bennett, and Mr. John Harris, the building has been provided with stained-glass windows, while the corridor is adorned with busts of eminent physicians and surgeons historically arranged, all presented by private donors.

The hospitals of Sydney are something to be proud of. The principal hospitals are the Prince Albert—the most aristocratic and the most modern one—St. Vincent's and the Sydney. Prince Albert has a capacity of 230, St. Vincent's 130, and Sydney 316. These are all general hospitals and receive everything but contagious diseases. Prince Albert and Sydney hospitals are supported jointly by the government and private subscriptions. There is no special army and navy hospital. St. Vincent's Hospital is supported entirely by the Catholics. A new wing designed to accommodate 150 patients is in process of construction for Prince Albert Hospital.

The Sydney Hospital is the oldest in Australia (1845), but its present quarters are comparatively modern. The spacious buildings are built of brown stone, and their architecture is something to be remembered, even by an American physician who is used to the best in hospital construction. Its location is especially fine, the spacious hospital grounds adjoining the wonderful Botanical Gardens—Sydney's pride. The rear windows of the hospital overlook the gardens. The operating theater at Sydney is new and very much up to date, even to the point of pumping sterilized air into the room prior to and during operations.

The pathologic and *x*-ray departments of the hospital are its special features. Dr. Harris, who has charge of the skiagraphic work, stands third in the world as to experience in skiagraphs for renal calculi.

The Laboratory of Pathological Chemistry is equipped with apparatus which renders it possible to make use of the more

modern discoveries in physiologic and pathologic chemistry in their application to the improvement of diagnosis, prognosis and treatment in many cases which were formerly surrounded by almost insuperable difficulties and fallacies. Notably is this the case with some of the diseases of the digestive organs and, indeed, of metabolism in general. During the last few years certain methods of chemical analysis have been introduced which have led to a great advance in knowledge, and are, indeed, now gradually revolutionizing treatment. It is the distinction of the Sydney Hospital that to it belongs the honor of being the pioneer hospital of Australia, perhaps of the Southern hemisphere, in introducing modern chemical methods in diseases of the stomach, and metabolism generally.

The appendicitis work done at the Sydney is something to make one proud of American ideas and their adoption in alien lands. Radicalism is the basis of treatment. Cases operated on successfully are of course classified as cures, but it is very refreshing to note that cases of apparent recovery without operation are classified as merely "relieved." The general adoption of this classification would do much for surgical science and for humanity.

Sydney hospitals certainly can not complain of a lack of patronage. The total number of cases under treatment last year was 4,237. Of these 1,710 were accident or urgent cases. The number of operations performed during the year was 2,938, an excellent showing.

In the matter of accident or emergency work in general Sydney has really excellent facilities. A well-equipped ambulance brigade, with sub-stations here and there throughout the city, shows the acceptance of modern ideas in this far away part of the world. I say far away advisedly. Very few communities are so dependent on their own resources as is Australia. Reading European and American news six weeks old impressed this on me very forcibly. An infusion of American brains, energy and capital would make Australia a great country.

The staff of Sydney Hospital is as follows: Dr. C. V. Bowker, medical superintendent, the following gentlemen being associated with him as resident medical officers, viz.: Dr. Stacy, resident pathologist; Dr. Corbin, senior resident medical officer, and Drs. Cameron, Foster, Griffiths, Hart, Newman and Savage. The following gentlemen were the resident medical officers for 1902, viz.: Drs. Anderson, Ambrose, Coombes, Sharp, Seldon and Webb. Dr. Corbin and Dr. Cameron were the senior resident medical officers, with Dr. Griffiths as resident pathologist. Sydney Hospital has a large and efficient training school in which great attention is paid to instruction by the resident staff.

I inquired especially as to the genito-urinary service at the Sydney. The year's record was as follows: Circumcision 127, radical cure of varicocele 10, radical cure of hydrocele 10, urethrotomy (external) 6, urethrotomy (internal) 13, dilatation of urethra 12, cystotomy (suprapubic) 4, cystotomy (perineal) 3, lithotomy 3, litholapaxy 5, opening of peri-urethral abscess 7, incisions for extravasation of urine 0, examination of bladder 2, removal of testicle 2, removal of calculus from ureter 2, prostatectomy 1, others 4, total 215. As may be observed, the service in this special department is light. Indeed, it would make a pretty small private practice for an ambitious man. The gynecologic department fares but little better. The yearly record is as follows: Abdominal section for ovariotomy and oöphorectomy 31, ectopic gestation 15, tubo-ovarian abscess 6, pelvic abscess 6, multiple abscess of broad ligament 0, ventrofixation 2, ovarian cyst 4, pyosalpinx 18, hysterectomy (abdominal) 10, hysterectomy (vaginal) 1, vaginal celiotomy 24, curettage 48, trachelorrhaphy 1, perineorrhaphy 3, Alexander's operation 23, repair of vesicovaginal fistula 2, total 216. The paucity of hysterectomies is especially noteworthy. A large general hospital with only one vaginal hysterectomy in a year—think of it!

Sydney is a city of contradictions, away behind the times in some few things, but in most it is worthy of emulation. Medically and surgically little exception can be taken to its status. There is not a decent eating house in the entire city of half a million inhabitants; if you want your shoes blacked you must go to a hotel and get out a search warrant for a porter, who wonders why you didn't have them polished twice during the previous night; if you want to quench your thirst or take a bath you are warned of the dangers of drinking the water, and instructed by the city to take a shower, not a tub, bath because water is scarce; but you can ride on a municipal tramway, and that is a great thing. The street cars, or trams, are run by the city and on the sectional system. The greatest distance costs three pence, and you can ride two miles for two pence. The employes work only 8 hours, and are well treated and well paid, yet the tram system netted £39,000 last year. This is something worth thinking about, all ye corporation-ridden American cities.

Sydney is not a suitable health resort for victims of insomnia. The postoffice clock and several rival sets of chimes vie with each other in the making of noise. The bell of the clock is a terror, and, to prepare its victims for the ordeal of listening to the striking of the hours, the various chimes play: "God Save the King." Then leaving Providence to deal with the king as best he may, the chimes retire for a spell and give a fair field and no favor to the clock: "Boom! boom! boom!" it goes and away flies balmy sleep. Just as you begin to doze, fifteen minutes later, the king gets into deep trouble again, and the chimes proceed to save him some more. And then you determine to economize nervous energy by remaining awake. Of one thing I am certain, the Sydney chimes save enough kings every day to insure England's line of succession for centuries. England should have a full hand of kings by this time. All the same I think it mean of Sydney to try to monopolize God's time. We need some "saving" in America.

Sydney has recently gone through its second epidemic of the plague. Much valuable knowledge has been gleaned by the local health board of Sydney. The epidemic just passed through was the second which Sydney had experienced. It afforded the first opportunity the world has had of studying plague occurring among white population and under modern scientific methods. The chief health officer, Dr. Ashburton Thompson, is a man of great ability and zeal and his industry is phenomenal. Simond's theory of the dissemination of plague by fleas from plague-stricken rats has been adopted as a working theory, and, as Dr. Thompson naïvely remarked, the health officers are supervising the health of the Sydney rats, rather than that of its people. The last plague rat was caught July 14 last. Since June 4,500 rats have been examined in the laboratory of the health board.

(To be concluded.)

Clinical Report.

FLY LARVÆ IN THE EAR.

GEORGE F. POPE, M.D.
RED LAKE, MINN.

August 25 there appeared at my office a man, 26 years of age, who seemed much agitated. He explained that he felt snakes in his right ear. By the aid of direct illumination I observed close up against the ear drum and in the canal just below it what appeared to be a mass of writhing white larvæ. Some of them were wiggling in a circular manner about the canal close to the drum membrane, but none ventured toward the external opening.

The rays of light from the mirror seemed to increase their movements and cause the patient greater pain and excitement. I therefore discontinued my examination and introduced a small pledget of cotton saturated with chloroform just within the canal. The movements of the larvæ soon stopped, as shown by direct illumination, so I syringed out the ear with warm water and got 21 dead larvæ. On undertaking a more careful examination of the drum I found an old scar in lower posterior quadrant, but failed to get a history of otitis-media.

The larvæ were sent to Prof. Louis Leroy of Vanderbilt University, Nashville, Tenn., for examination. He reports them to be from one of the common house flies. He informs me that they usually occur in ears in which some discharge of pus has been taking place.

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INTRAVASCULAR INJECTIONS OF FORMALIN IN SEPTICEMIA.

A case of puerperal septicemia recovered after the intravenous injection of formalin solution. We are told that the case was regarded as hopeless and that the effect of the formalin injection was "magical." This episode has been exploited in a sensational manner in the daily press and it has been heralded in medical journals as a discovery and an epoch in the history of medicine. While all would welcome the demonstration of a successful treatment of septicemia, there is unfortunately the very best of reasons for questioning the correctness of the inference that the recovery in the case referred to resulted directly or indirectly from the injection of formalin. The reasons for this doubt may be presented under two heads, namely, (1) the now well-known occurrence of spontaneous recovery from various forms of septicemia, or blood poisoning, and (2) the inadequacy of available evidence to show that formalin solution has any bactericidal or curative effect when introduced into the circulation of infected animals in nonfatal doses.

Every physician of experience has had the opportunity to observe apparently "hopeless" cases of septicemia suddenly change for the better and perchance after a remission or two go on to recovery. The bad prognostic significance formerly and even now attached to the diagnosis of septicemia or blood poisoning is sure to undergo considerable modification as the results of bacteriologic examinations of the blood during life and according to approved methods become more generally known. It has been shown conclusively that cases of bacteriemia, be it streptococcemia, pneumococcemia or staphylococcemia, may recover spontaneously even when the blood has been found to contain large numbers of bacteria, and even when metastatic foci, such as articular inflammations and endocarditis, have developed. This being the case, the recovery in a single, isolated instance of streptococcemia injected with formalin proves little or nothing in regard to the value of the latter. For aught we know it might be nearer the truth to say that recovery resulted in spite of the formalin injections. We can not regard the puerperal septicemia "as an otherwise fatal condition." In 47 cases of bacteriemia, demonstrated to be such by cultures from the blood during life by Bertelsmann,[1] death took place in 26. In this series there were 28 cases of streptococcemia, and of these 13 died. Other examples of this kind could be cited. Recently Herrick[2] has collected a number of cases from the literature of recovery after undoubted malignant endocarditis. He is fortunate enough to furnish the anatomic proof of the healing of ulcerative endocarditis in three cases in the form of healed valvular perforations. In view of these facts it is self-evident that the actual value of formalin injections in septicemia can be determined, from the clinical standpoint, only by systematic use in a large series of cases under careful control by persons capable of sober judgment.

Coming now to the experimental study of the curative and bactericidal action of formalin solutions in infected animals, then we may say, in brief, that the results so far are not at all encouraging. Fischer and Tieken[3] found that repeated intraperitoneal injections of formalin, 1/2000 or 1/1000, in doses of from four to eight cubic centimeters, had an unfavorable influence in guinea-pigs with peritoneal tuberculosis. The injected animals were less able to resist the tuberculous infection than those not injected. Fortesque-Brickdale[4] found that formic aldehyd in large doses so depresses animals infected with pneumococci that they die sooner than an untreated animal used as control. Formalin, i. e., formaldehyd, according to Waldemar Koch,[5] interferes with the normal proteolytic processes in the cells, and hence it would tend to reduce rather than strengthen the cellular resistance to noxious agents. Certainly not much may be hoped from the use in human septicemias of an agent that has proved so disappointing in animal experiments.

Pending scientific investigation, an emphatic caution should be given to the general practitioner. Six or more cases in which this agent was used are already reported in the newspapers, and most of these trials were undoubtedly suggested by the accounts of Barrows' case in the lay press. This indicates the eagerness of the profession to avail itself of any hope of relief in a desperate condition. The trial should certainly be left to cases *in extremis*. Barrows[6] warns the profession against indiscriminate use of this agent where proper blood cultures have not been made to determine the cause of the septicemia.

The technic of the injection is simple—that of any intravenous infusion and with all the usual surgical precautions. The solution used has been of a strength of 1 to 5000 of formalin in physiologic salt solution. As much as 750 c.c. have been injected. In determining the results the value of injections of physiologic salt solution itself, either with or without abstraction of some of the sepsis-laden blood, should be remembered. Control experiments would be of exceeding value in such cases if they were possible.

1. Verh. o. Gesellsch. f. Chir., 1902, xxxi, 291-304.
2. Trans. Assn. Americ. Physicians, 1902, xvii, 468-483.
3. Trans. Chicago Pathologic Society, 1902, v, 61-63.
4. Lancet, 1903, January 10.
5. Am. Jour. of Phys., 1902, vi, 325.
6. N. Y. Med. Jour., January 31.

CYTOTOXINS AND HEREDITY.

Aside from metaphysical and recondite distinctions with which the subject has been somewhat obscured, the question of heredity of disease may be stated as follows: Can parents, apart from direct antepartum or postpartum infection, transmit their diseases or defects to their offspring? As regards most germ diseases it is coming to be generally believed that they are not thus transmitted save in very exceptional cases, otherwise than through direct parental infection either after birth or during fetal life. In some cases where no parasitic origin has been definitely established, it is still assumed that such exists and that the same rules apply. While it is still largely recognized that in some diseases a predisposition may be created, yet even this is being questioned by some, and the favorite theory of germ transmission is invoked to account for the conditions existing. One does not have to look far in medical literature to find this tendency; it is not yet predominant perhaps, but it seems to have grown in favor of late years. The burden of proof has been, in a measure, shifted from the advocates of infection in a large class of disorders heretofore reckoned as due to transmitted anomalies of metabolism to those who would still maintain their constitutional and hereditary character. The influence of heredity has been minimized even in nervous disorders and insanity in some quarters, notwithstanding the very obvious evidence of its existence. Bacteriology and certain theoretical biologic views seem to have very largely discredited heredity—at least with some medical writers and thinkers. The sins of the fathers, they hold, are not visited on the children to the third and fourth generation, except in some vague way of impairment of the germ plasm or through the direct agency of infecting microbes.

To the average practitioner, however, there is still a reasonable probability of the inheritance of disease; it is the most natural way of accounting for clinical facts of daily experience. What we need is more thorough studies of the phenomena of degeneration as shown in the offspring of diseased parents and of their correspondence with the original lesions of the progenitors. The inheritance of a predisposition to a special disease would seem to imply a special weakness of the organs involved or lack of resistance to a special microbic agency, which is in reality not so essentially different from the actual inheritance of the disease itself. The distinction is more a metaphysical than a practical one.

In a lecture[1] recently delivered at the College de France, M. Charrin discusses this subject at length and gives the results of special studies as to the part played by the soluble toxins in the transmission of pathologic taints. He found that the fetal cells are directly influenced in their structure, function and secretions by paternal and still more by maternal disease so that it is difficult to avoid seeing the relation between them, and this without bacterial infection or, at least, without any characteristic species and without any causal factors in the environment. Instead of vaguely speaking of "the soil" or "the predisposition" Charrin thinks that we should discriminate between the various morbid manifestations which result from pathologic taints in the progenitors. He has been able to determine a deficient alkalinity in the plasma or an increase in the toxic substances in the humors in the infants of diseased parents. He has also observed in these or other infants a tendency to hypothermia capable of inhibiting phagocytic action. He gives the details of his findings in a number of cases and proclaims that it is necessary in each case to seek for the exact pathologic taint in the infant and counteract the morbid tendency by special, appropriate measures. He has been conducting much clinical and experimental research in regard to the transmission of cytotoxins, and thinks that such soluble substances play a very important part in the transmission of morbid tendencies. Among the experiments related is the subcutaneous injection of an emulsion of liver substance in a gravid goat. A total of 84 gm. was injected at various times, equal to 2 per 1000 of the animal's weight. Sixteen days after the last injection she was delivered of a kid that died at once. All its organs were macroscopically sound with the exception of the liver, which was reduced to a pulp. There were no traces of microbes. It is not difficult to conceive after witnessing such experiments that the disintegration of a tuberculous lung in a pregnant woman might lead to the production of a pneumotoxin. This pneumotoxin, passing through the placenta, might have an injurious influence on the development of the embryonal lung, not inducing necessarily any decided lesions, but preventing its full normal development. The lung in the offspring, therefore, would always remain a weak point. Such facts suggest an explanation for the fact that in certain families the liver is affected generation after generation, in others the heart or kidneys. More than this—we already know the mode of action of the lysins: they induce the production of or incite to action the alexins, complements, sensibilisatrices, etc. We also know how to combat them by inducing the production of antisubstances. There is thus a prospect that we may be able by this means to institute effective therapeutics based on our knowledge of the pathogeny.

M. Charrin's article is suggestive in many ways; we have given only a brief review of some of its leading features. The field of study it points out is apparently one well worth cultivation and one that may be fruitful in resolving some of the obscure problems of biology as well as giving possible direct practical results in the therapeutics of disease.

1. La Semaine Med., No. 51, Dec. 17, 1902.

COLOPEXY FOR EXTENSIVE RECTAL PROLAPSE.

Prolapse of the rectum as so frequently met in children usually yields to palliative measures even if the prolapse be very extensive; on the other hand, the treatment of prolapse in adults is far from being such an

easy matter, as can be seen by the numerous methods of operative treatment which have been advised. Many factors tend to produce prolapse, the most important being relaxation of the rectum, of the pelvic floor and of the sphincter. When there exists with this constipation and resulting straining at stool, the condition rapidly becomes aggravated enough to demand operative treatment.

Among the measures which have been suggested are various methods of narrowing the anus and of reducing the relaxation. The use of the actual cautery to produce cicatricial contraction has not been followed by satisfactory results, so far as cures go, and in some cases of extensive prolapse has been followed by perforation with fatal result. The method of narrowing the rectum by torsion of the intestine, as suggested by Gersuny, is frequently followed by failure. Excision of the mucous membrane, as in Whitehead's operation, is a simple operation, not accompanied by much danger, but which has failed to give permanent cures. Resection of the prolapse, as specially advocated by Mikulicz, has in the past been considered the most reliable method of treatment, although the operation is extensive and accompanied by some danger. This should be undoubtedly the operation of choice in those cases in which the prolapse is strangulated or in which there is extensive ulceration.

Suspension of the intestine is a method which has come into use very recently, and has been specially recommended by Ball of Dublin, whose Lane lectures on rectal surgery in San Francisco were recently listened to with so much profit. Von Eiselsberg[1] of Vienna has published the results of colopexy, or suspension of the colon, in 13 cases, and from his experience he believes with Ball that this is the method of choice in the treatment of extensive rectal prolapse. He finds that resection and the various methods of narrowing the lumen of the intestine or anus are unreliable, recurrences following frequently. Moreover, the operation of resection is severe enough to be followed by a considerable mortality. Colopexy may be performed through a small incision in the left side, not larger than that required for an exploratory operation. The prolapse is not only replaced, but drawn up so that the anus has a funnel-shaped appearance, and two or three rows of silk sutures fasten the denuded wall of the colon to the abdominal wall. He keeps his patient in bed from three to five weeks following the operation. The operation in his hands has not resulted fatally in any case. Recovery has been uneventful, and the permanent results entirely satisfactory except in two cases, in which the patients were, however, considerably relieved.

This operation has not come into very general use in this country. The advantages which it offers and the satisfactory results which have followed in the hands of reliable men, seem to commend it as an operation deserving to be much more generally employed.

1. Archiv für Klinische Chirurgie, 1902, vol. lxvii, page 745.

THE METRIC SYSTEM AND MEDICAL SCHOOLS.

It is now more than twenty years since the metric system was first indorsed by the American Medical Association. Within that time it has become more or less familiar to the medical public of this country, but its adoption is yet far from being accomplished. It is a difficult thing to supplant old habits, and all the conservatism of human nature comes into active play in such cases as the adoption of a system which not only in its medical, but in almost all other relations of life would require a change in our habitual conceptions and usages. Nevertheless, there are many physicians, though perhaps fewer just now than some years ago, who use this system in their prescription writing. It would be well if the practice were more general. The advantages are obvious, it would put us on the same footing with physicians throughout the greater part of the civilized world. Only in the English-speaking countries is the metric system not the usual one employed. We are constantly required to understand the meaning of grams, centigrams and cubic centimeters in our medical literature, with sometimes awkwardly confusing results; and serious mistakes have not been always avoidable because of the lack of care in properly stating the signs for grams and grains.

The change would not be a difficult one to the physician, and we believe there are few druggists who would be unable to adapt themselves to the newer system without serious difficulty. We can easily see the drawbacks in large economic industrial establishments where the sudden change of systems, it has been calculated, would cause a very great expense, reaching thousands of dollars in special establishments and manufactories. This, however, does not apply to the medical side of the question, where the change would be comparatively easy. The indorsement given by the Association has been repeated more than once, and there is just as much reason for it at the present time as ever. The public is already half educated to the change. It would take but little more for us as physicians to make it complete.

It may be that the solution of the question rests with the instruction in medical colleges. If the metric system were used primarily in them and the old apothecaries' weight only incidentally, instead of the reverse, as at present, the newer generation of doctors would perhaps go out metric habitués—so to speak—and the usage of the really more scientific and convenient medical notation come to be the rule. The text-books would then be obliged to follow suit. At present there is often a sort of lurking suspicion that metrically-written prescriptions may not be properly dispensed. Of course, with educated pharmacists there should be no question, but the suspicion undoubtedly exists and must be overcome. In the physician unused to the metric system his uneasiness is perhaps born of his own lack of knowledge. A little more attention to the subject in the medical schools would, we think, do away with this doubt. A disuse of

the old apothecaries' weights in the common school text-books would also be a help, but can hardly be expected as long as they are so universally in use. But when the physician and pharmacist cease using the old complicated weights, who else will want to use them? It is to the medical schools that we must probably look for the real initiation of the reform.

DECEITFUL TRADEMARKS LOSE THEIR PROTECTION.

The United States Supreme Court has recently given out a decision which has some bearings on medicine. The case at hand is that of a California medicine company against another patent medicine company for infringement on its trademark. It went through the various courts and finally reached the United States Supreme Court and was fully argued. In the opinion of Justice Shiras it was held that if any symbol or label claimed as a trademark is so constructed as to contain any distinct false assertion its exclusive rights can not be maintained. If the plaintiff makes any material false statement, says the court, in connection with the property which he seeks to protect, he loses his right to claim the assistance of a court of equity. Any advertising trademarks, therefore, for quack medicines with extravagant assertions or claims are hereafter useless.

DO MANUAL INJURIES DISABLE PHYSICIANS?

A physician is not a manual laborer, but the use of his hands is about as essential to him as it is to the larger proportion of the class that earn their living by their daily work. This, however, does not seem to be the view taken by an insurance company. An accident insurance company was sued to recover a disability policy by a physician who had his hand badly cut and was for several weeks deprived of its use. The special claim was made that he was prevented from performing several surgical operations. He simply asked for the $5 per week disability which the policy promises. In its reply the company, with the usual evasiveness of too many business corporations, claim that a physician is not disabled by any manual injury, but that he earns his living by the use of his brain. It thus apparently altogether ignores the claims of loss from disability to perform surgical operations. Of course, this is a matter that probably will not go beyond the court and will be quickly settled, we believe, to the discomfiture of the company, but the claim is a new one—that manual dexterity is of no value to a physician—and shows how business corporations as well as other organizations of individuals endeavor to exploit the medical profession.

THE PHYSICIAN AND THE PHARMACOPEIA.

It looks as though we were to have a reaction in the medical profession from the use of proprietary remedies and polysyllabic compounds to the employment of the simple but officinal drugs and compounds of the United States Pharmacopeia. It can not be denied that too many physicians are unfamiliar with that valuable work. Created by the medical and pharmaceutical professions, it has always been recognized by the pharmacist as a reliable and official guide, but to the physician it has been too often an unknown work and one seldom found on his book-shelves. Wilbert,[1] in a timely article, lays some of the blame for this unfortunate condition to the enormous increase in proprietary medicines, which have become, he says, an unmitigated nuisance. He notes with satisfaction, however, the return on the part of the ablest medical men to the use of the simpler but more efficient and safer remedies of the Pharmacopeia. Therein are described drugs and combinations of drugs to meet every therapeutic indication, while "among the untold thousands of patented preparations not a single one has been demonstrated to be able to produce any physiologic phenomena that can not be produced by one or more substances readily available in the ordinary channels of trade." There is a need in the literature of the day for more discussion of the common remedies and their therapeutic uses, such, for example, as is suggested by our Therapeutic department January 17, where sulphur is recommended as of value in many and various conditions. If the physician would study his Pharmacopeia more and proprietary circulars less, it would be better both for himself and for his patients and for the pocket-books of both. Wilbert further speaks of the recent Congress for the Unification of Heroic Remedies, and urges that the suggestions for international standards ought to be incorporated in the Pharmacopeia. The publication of the next revision may be expected in about a year, he says, and if medical societies should at once express themselves as in favor of such a course the revision committee would include the standards. This would be a long step toward their international adoption, which is so much desired.

Medical News.

CALIFORNIA.

To Ward Off Disease.—A bill has been introduced in the State Senate appropriating $100,000 for the use of the State Board of Health, to ward off contagious diseases.

Resort for Semi-Invalids.—Through the beneficence of N. O. Nelson of St. Louis, a resort for semi-invalids has been started at Indio in the Coachella valley. He has bought 127 acres of land, and will erect a central building and a number of cottages.

Polyclinic Election.—The trustees of the San Francisco Polyclinic have elected the following officers: President, Dr. George W. Merritt; vice-president, Drs. John Wilson Shiels and Henry L. Wagner; secretary, Dr. Martin Regensburger, and treasurer, Dr. Louis Bazet.

Smallpox.—At Big Sandy 10 cases are reported among the Indians. Kingsburg has had 51 cases, but the disease is now under control. In Fresno there are 10 cases at private houses and 4 in the county isolation hospital. Redding has had 3 cases. The disease, which was apparently epidemic in Tulare, is disappearing.

The Mortality of Los Angeles.—During 1902 there were in Los Angeles 2,290 deaths, about 300 more than in 1901. The death rate per thousand—16.96—is relatively high, due, as the health officer explains, to the immigration of patients in advanced stages of tuberculosis. Tuberculosis was the cause of 484 deaths, and of these 366 had been in Los Angeles less than 10 years, and 212 less than one year.

In Trouble.—Dr. Ralph A. Huntington, San Franciso, who was convicted Feb. 20, 1901, of manslaughter for causing the death of Miss Jennie McKown and was sentenced to serve the maximum term of ten years, has been granted a new trial by the Supreme Court.——"Drs." William Davis and H. L. Meyers, "oriental healers and seers," of Los Angeles, have been

1. The Physician and the Pharmacopeia. M. I. Wilbert, Ph. G., New York Medical Journal, January 3.

arrested for conspiracy to defraud.——Sylvester W. Richmond, a "layer-on-of-hands," of Los Angeles, has been convicted of practicing medicine without a license.——Julia S. Tickel, Fresno, is under indictment for alleged unlawful operations.

Personal.—Dr. Matthew Gardner, San Francisco, has been appointed a member of the State Board of Health, vice Dr. Walter B. Coffey, resigned.——Dr. Frank P. Wilson has been appointed assistant city physician of San Francisco.——Dr. George Chismore, San Francisco, was recently injured by a collision with an automobile.——Dr. Zemach Levin, San Francisco, has returned after six months' study in London and Berlin.——Dr. Edwin A. Kelley, Berkeley, has been appointed second assistant physician at the Agnews State Hospital for the Insane.——Dr. William N. Moore, Ukiah, has been appointed a member of the local board of health, vice Dr. Samuel L. Rea, resigned.——Dr. J. Coplin Stinson, San Francisco, has been appointed a member of the board of health.

DISTRICT OF COLUMBIA.

Returned from the Philippines.—Dr. Thomas C. Chalmers, major and surgeon, U. S. V., was honorably discharged from the medical service February 1. He will take up practice in New York City, and has been elected surgeon to the Twelfth Infantry, N. G., N. Y.

Health of the District.—The report of the health officer for the week ended January 28 shows the total number of deaths to have been 114, of which 69 were white and 45 colored. At the close of the week there were 148 cases of typhoid fever, 13 of scarlet fever, 13 of diphtheria and 7 of smallpox under treatment.

For School Medical Inspectors.—Senator Gallinger has offered an amendment to the district bill providing for 11 medical inspectors for the public schools to be appointed by the board of education, each at a salary of $500 per annum. Eligibility for appointment is based on five years' practice of medicine in the district and a competitive examination.

Resident Physicians Appointed.—At the competitive examination, held January 24, to fill vacancies in the house staff of the Central Dispensary and Emergency Hospital, Drs. John T. Dunn and W. Robert Perkins of the District of Columbia were successful and will become senior and junior assistant resident physicians. Dr. F. H. Warhart, the resident physician, retired February 1 and was succeeded by Dr. J. H. Cashman. Dr. Richard Lightburn Sutton, Kansas City, Mo., the former resident physician, has successfully passed a competitive examination and has been appointed first lieutenant and assistant surgeon in the Navy.

Hammond Relief Bill.—Senator Elkins has introduced a bill to amend the act approved March 15, 1878, so as to appeal the provision that Dr. Hammond should not be entitled to pay while on the retired list of the Army and providing that he shall be entitled to the pay of brigadier general on the retired list from the date of his appointment and retirement under said act, Aug. 27, 1879, up to the date of his death, Jan. 5, 1900, the same to be paid to Esther D. Hammond, his widow. The general impression is that the bill should and will pass and become a law. Mrs. Hammond is prominent in society, and an active member of many prominent charity organizations of the district.

Hospital Appropriations.—Senator Stewart has offered an amendment to the sundry civil bill appropriating $100,000 for the reconstruction and completion of the Providence Hospital. A modern morgue is to be added and the approaches to the hospital graded.——Senator Gallinger has offered an amendment to the district bill appropriating $75,000 for the erection of an additional building to the Homeopathic Hospital.——Senator Mason has offered an amendment to the same bill appropriating $200,000 for the erection of new buildings for the Freedman's Hospital. Two hundred patients will be accommodated in the extension, and it is provided that the Howard University shall furnish, from its medical department, free of cost, a medical staff.

Committee on Public Health.—Dr. D. Percy Hickling, chairman of the committee on public health of the board of trade, presented his report at the recent annual meeting of the association. It showed a large amount of valuable work done during the past year and contained a number of valuable recommendations, including general hygiene of the District, prevention of diseases, provision for public baths, public houses of convenience, and medical supervision of schools. Dr. Kober addressed the meeting, discussing general health conditions. Surgeon-General Sternberg read a paper on the prevention of tuberculosis, its origin and treatment. Dr. W. C. Woodward discussed the health needs of the District. Mr. Weller, secretary of the Association of Charities, delivered an illustrated lecture on the slums and disease-breeding localities of the District.

New Army General Hospital.—The new Army general hospital recommended to congress by the Secretary of War, to be established in the District of Columbia, is designed to serve as a base hospital in time of war, and to be so situated as to permit of immediate and temporary enlargement. On the outbreak of war troops would be assembled in the vicinity of Washington and there would be immediate need for such a hospital. This hospital is to form part of the equipment for the Army Medical School, enabling the student officers to become familiar with the method of administration, hospital inspection, the use of the Roentgen rays and other diagnostic apparatus, and to receive instructions in medical and surgical procedures having special application in the military service. The hospital will also have facilities for the practical training of the hospital corps and the army nurse corps. The staff will be composed of army medical officers having a special knowledge of surgery, diseases of the eye, ear, throat, etc., and special equipment will be provided for the treatment of such diseases. The need of such a hospital was evident during the recent war and a general hospital on a small scale was established at Washington Barracks, but this establishment has been found inadequate in size, and it can not be increased, as the ground is required for the erection of buildings for the Army War College at the post. Since this hospital was established in 1898, 3,000 hospital corps men have been trained and sent to military posts in the United States, Porto Rico and the Philippines. Hundreds of successful operations for hernia have been performed, thereby saving the government thousands of dollars in pensions. The student officers have had the benefit of hospital training in all its branches.

ILLINOIS.

An epidemic of measles at Taylorville is reported; 300 cases exist and 10 deaths have occurred.

Springfield Hospital staff has elected Dr. George F. Sterieker, president, and Dr. R. Dillard Berry, vice-president.

Hospital for Waukegan.—Through the liberality of Mrs. Jane McAllister Waukegan is to have a new hospital to cost $20,000, which Mrs. McAllister will also equip.

In Memory of Dr. Kohl.—The St. Clair County Medical Society, at a special meeting in Belleville, adopted tributes to the life and character of its late member and president, Dr. Julius Kohl.

Dr. Murphy's Estate and Bequests.—The will of the late Dr. John Murphy, Peoria, devises an estate appraised at $400,000. St. Francis' Hospital, Cottage Hospital, Home for the Friendless and Home of the Good Shepherd, each receives $5,000.

Personal.—Dr. John F. Snyder, Virginia, has been elected president of the Illinois State Historical Society.——Dr. William R. Patton, Charleston, was thrown from his buggy, January 26, and dislocated his left shoulder.——Dr. William F. Grinstead, Cairo, left on February 1 for a trip of four months in Europe and the Holy Land.

To Create Tuberculosis Sanitarium.—Representative Hardin has introduced a bill to create a state sanitarium for the scientific treatment of persons afflicted with tuberculosis. The bill provides an appropriation of $200,000 for the institution and creates a board of trustees consisting of three members, one of whom is to be a physician.

Chicago.

Rupture Specialist in the Toils.—Edwin E. Rohrabaugh, an itinerant hernia specialist of Chicago, was recently arrested in Des Moines. The grand jury has found a true bill against him on the charge of violating the law whereby itinerant physicians in Iowa are required to pay a special license fee.

Deaths of the Week.—During the week ended January 31 586 deaths occurred, 35 more than in the preceding week and 69 more than in the corresponding week of 1902. Pneumonia caused 104 deaths; consumption, 52; bronchitis, 32; heart disease, 46; Bright's disease, 41, and violence, 42. The annual death rate per 1,000 for the week was 16.20.

Alexian Brothers' Hospital.—The annual report of the Alexian Brothers' Hospital shows that in 1902 2,981 patients

were cared for, of whom 1,912 were discharged cured. Of 305 who died during the year 122 were admitted to the hospital in a dying condition. Of all the patients treated, 1,681 paid fees in full, 397 paid partially, and 903 were treated gratis.

Smallpox.—During January 50 cases of smallpox were reported. Of these 24 were negroes; 24 had never been vaccinated. Only 6 had marks indicating previous vaccination, and these were old. An interne at the County Hospital was one of the infected. He was 30 years of age and had an old atypical scar. Of the 50 patients 11 were from points outside Chicago.

Founder's Day at Northwestern.—The alumni of Northwestern held their third annual banquet, January 27. Dr. William W. Keen, Philadelphia, was one of the guests of honor, and the arrangements were in the hands of Dr. Winfield Scott Hall. President Hadley of Yale delivered the address at the closing exercises on "The Place of the Professional School in the Modern University." The honorary degree of Doctor of Laws was afterward conferred on Dr. Keen.

Coal Famine and Mortality.—The department of health in its *Bulletin* for January 31 considers that the increased mortality for January is due directly to the shortage of coal.

Unrevised returns of mortality for the month of January, 1903, show an increase of 10.4 per cent. (or 344) in the actual number of deaths from all causes and at all ages, and of 11.4 per cent. in proportion to population, as compared with January, 1902, when coal was abundant at one-half the price or even less than that it now commands—when it can be obtained at all. These two facts are cited together because, in the judgment of the health department, the latter is the principal if not the sole cause of the former. A large proportion of the excess deaths is, as was stated in the *Bulletin* of January 10, due to cold and exposure caused by the coal famine, and which at that date had affected the health of fully 10 per cent., or nearly 200,000 of the population of the city. Had any other one cause so seriously menaced the public health and welfare a grave emergency would have been declared to exist, authorizing the exercise of the plenary power of the municipality under the warrant and law of "overruling necessity."

MARYLAND.

Baltimore.

Vital Statistics.—Pneumonia is largely prevalent, it is believed owing to the epidemic of measles. Of the 242 deaths reported last week, 47 were ascribed to it, while bronchitis caused 7. There were 204 new cases of measles reported, with 5 deaths, and 40 new cases of diphtheria were reported. The deaths reached the high rate of 23.02 per 1,000 per annum.

Magness Reindicted.—Dr. Thomas H. Magness, who was indicted at the last term of court at Parkersburg, W. Va., charged with taking the state medical examination there last spring in the name of David Shepler of Bellevernon, Pa., a student of the Baltimore University, of which Magness was then resident physician, and of personating the said Shepler, was indicted again January 27, the former indictment having been quashed on account of a technicality.

The Frick Library.—The Charles Frick collection of the Medical and Chirurgical Faculty now numbers 2,209 volumes. There were added during 1902 273 volumes, chiefly English, French and German works on diseases of the kidneys and internal medicine. Increasing appreciation of this collection is shown, 2,223 volumes being taken out for home use and 4,510 readers being registered during the year. A valuable addition lately made through Dr. Osler is a remarkable collection of theses by American students at the University of Edinburgh between 1760 and 1810. The Frick fund for 1902 included $500 from Mr. William F. Frick, $50 from Mr. Frank Frick, and $200 from Mrs. Dr. H. Barton Jacobs. In addition to this was the membership of the Book and Journal Club, amounting to about $500. This club, organized seven years ago, has contributed about $3,000. The above funds are devoted exclusively to the purchase of new books and the more expensive journals, while the appropriation set aside by the faculty is used for running expenses, and the larger bills for journals and binding.

Wood Alcohol Poisoning Case.—The trial of the wood alcohol poisoning case in the Baltimore Court was the leading medical feature here last week. The court refused to admit the analysis of Jamaica ginger made by the drug firm two years after the alleged poisoning. He also refused to take the case from the jury and decide it himself. A former employe of the drug firm testified that the latter used wood alcohol in the preparation of Jamaica ginger from 1897 to 1900, the proportions used being: wood alcohol 30 per cent., grain alcohol 50 per cent., and water 20 per cent. The attorney for the defense acknowledged that this proportion was correct, and that in the three years 65,376 bottles of the preparation were placed on the market. Drs. Herbert Harlan and Hiram Woods testified that Dr. Brehm's loss of sight was due to wood alcohol. Dr. Charles A. Crampton, a government chemist employed in the internal revenue department; W. A. Puckner, professor of pharmacy in the University of Illinois, and F. P. Kuehne, a manufacturer of flavoring extracts at St. Louis, testified that wood alcohol, in their opinion, was not poisonous.

MASSACHUSETTS.

Gifts to Harvard Medical School.—During 1902, $727,845 was given to Harvard University for capital account, and $367,891 for immediate use. For the medical school John D. Rockefeller gave $308,758, subscriptions were made amounting to $189,024, and for the George Higginson professorship of physiology, $100,000 was given by Mr. Higginson's children.

Alleged Operation Without Consent.—Suit has been brought by an aged Charlestown woman against Dr. Samuel J. Mixter, Boston, for $2000 damages. The plaintiff alleges that Dr. Mixter operated on her without having obtained her consent, and that in consequence she has since continually suffered and will continue to suffer, besides having been put to great expense.

Epileptic Hospital Report.—The trustees of the Massachusetts Hospital for Epileptics, Monson, have prepared their annual report. They ask for a group of farm buildings, which will relieve congestion in the institution buildings proper. These should cost about $50,000. The superintendent further states that next year a cold-storage plant, asylums for fifty men and fifty women during maniacal attacks, and a laboratory will be needed. There were, on September 30, 377 patients in the institution against 270 a year ago. The per capita weekly cost of maintenance was $4.31.

Violations of Law.—Ulderic St. Pierre of Fall River has been convicted for the third time of holding himself out to be a physician without being duly registered, and has been sentenced to pay a fine of $500 and to be imprisoned for five months.——George W. Bradley, North Adams, who, it is alleged, purported to be a physician without having registered, was fined $100, the minimum penalty. He took an appeal.——Henry D. Noel, a "suggestive therapeutist" of Fall River, charged with practicing medicine without being duly registered, was fined $125, and in default of bonds, was confined in jail.

Bequests to Hospitals.—Mrs. Mary Longfellow Greenleaf of Cambridge, in her will, bequeathed $5,000 to each of four hospitals.——By the will of Navey E. Rust of Boston, $10,000 is left to the Addison Gilbert Hospital, Gloucester; $5,000 to the Perkins Institution and Massachusetts Asylum for the Blind, and the balance, about $15,000, is to be given to the Addison Gilbert Hospital in memory of Elias E. and Esther G. Davison.——Lucy Richmond Read of Boston, in her will, bequeathed $5,000 each to the convalescent home of the Children's Hospital, Wellesley; the Willard Hospital for Dipsomaniacs, Bedford; the Channing Home for Consumptive Women, Boston, and the Sharon Sanitarium.——Lamont G. Burnham, Boston, by his will devised $150,000 to the Boston City Hospital for a new building.——By the will of Mrs. F. L. Ames of Taunton $5,000 is given to establish a free bed in the Massachusetts General Hospital and a similar sum to endow a free bed in the Boston Home for Incurables.

MICHIGAN.

Personal.—Dr. William H. Haughey, Battle Creek, has been appointed local surgeon for the Michigan Central Railroad.——Dr. George Dock, Ann Arbor, is journeying through California.——Dr. Henry D. Thomason, major and surgeon, U. S. V., who has been stationed in the Philippines for two years, is on his way to the United States.

Faculty Changes at College.—Drs. Robert S. Linn, Detroit, and Vernon J. Hooper, South Lyon, have been appointed professors of tropical medicine at the Michigan College of Medicine and Surgery, Detroit; Dr. Peter M. Campbell will take the chair of electrotherapeutics; Dr. Heneage Gibbes that of internal medicine and pathology, and Dr. E. C. Watson will lecture on laryngology and rhinology.

Comparative Morbidity.—For December, 1902, compared with the preceding month, influenza, pneumonia, scarlet fever, erysipelas, smallpox, measles and dysentery were more prevalent; and diphtheria, intermittent fever, cholera morbus and puerperal fever were less prevalent. Compared with the average for December in the 10 years, 1892-1901, smallpox, measles

and whooping cough were more than usually prevalent: and consumption, intermittent fever, remittent fever, dysentery and puerperal fever less than usually prevalent.

Muzzle All Dogs.—At a meeting of the State Board of Health, January 9, Dr. Victor C. Vaughan, Ann Arbor, made a report of the special committee on the subject of hydrophobia, and offered the following preamble and resolution, which were adopted:

Inasmuch as hydrophobia is widely disseminated throughout the state, and many people are being bitten by rabid dogs,

Resolved, That the State Board of Health recommends that municipal and township authorities order the muzzling of all dogs at large, and make and publish regulations to that effect.

The Most Dangerous Communicable Diseases.—Meningitis was reported present in Michigan during December, 1902, at 10 places; whooping cough at 39 places; measles at 63 places; typhoid fever at 110 places; diphtheria at 113 places; smallpox at 126 places; scarlet fever at 177 places; and consumption at 239 places. Meningitis was reported present at 3 places more; whooping cough at 12 places more; measles at 15 places more; typhoid fever at 9 places less; diphtheria at 35 places more; smallpox at 85 places more; scarlet fever at 34 places more; and consumption at 1 place less, in December, 1902, than in the preceding month.

December Mortality.—There were 2,666 deaths in the state during December, an increase of 309 over the preceding month. The death rate rose from 11.7 to 12.8 per 1,000, being slightly higher than the rate for December, 1901. Important causes of death were as follows: Tuberculosis, 194; typhoid fever, 59; diphtheria, 68; scarlet fever, 16; measles, 11; whooping cough, 23; pneumonia, 291; meningitis, 26; influenza, 35; cancer, 122; accidents and violence, 173. As compared with the preceding month, an increase was shown in the deaths from tuberculosis, diphtheria, pneumonia, influenza and external causes, and a decrease in the number reported from typhoid fever and scarlet fever. There were 5 deaths returned from smallpox. One death was reported from hydrophobia in Saginaw.

NEW YORK.

Typhoid at Ithaca.—The epidemic of typhoid fever at Ithaca has attained serious proportions. The nurses at the City Hospital have been obliged to give up their rooms for patients. There are at least 200 cases in the city, and the number is rapidly increasing.

Personal.—Dr. George D. Whedon, Syracuse, while ill, fell and fractured his right leg below the knee.——Dr. Julius E. Haight, on leaving the Utica State Hospital for the Manhattan State Hospital, Central Islip, L. I., was presented with a handsome toilet set by the employes.——Dr. William A. Allen, secretary of the Flushing Hospital for many years, has resigned.

Deaths During 1902.—The annual report of the State Department of Health shows the number of deaths to be 124,160, or 5,000 less than in the previous year, making a death-rate of 17 per 1,000. The zymotic mortality was high, and deaths from typhoid and scarlet fever increased; those from smallpox remained stationary. There were 8,800 deaths from pneumonia, 5,500 from Bright's disease and 4,000 from influenza.

New York City.

Trachoma Department.—On Oct. 20, 1902, the health department opened, as a part of Gouverneur Hospital, a special department for the treatment of contagious eye diseases. Between that date and January 3,791 cases were treated, the majority of which were of trachoma.

Personal.—Dr. George T. Stewart, formerly superintendent of Bellevue Hospital, has been appointed superintendent of hospitals of the board of health. His duties will be executive. ——A fire at the residence of Dr. John H. French, January 28, did damage to the extent of $1,500.——Dr. John A. Irwin, on retiring from the presidency of the British Schools and Universities Club, was presented with a seven-quart loving cup.—— Dr. L. Rosenwasser, medical inspector, has been suspended by Commissioner Lederle for receiving a fee in the line of duty. ——Dr. Earle E. Woolworth, Brooklyn, fell from his wagon, January 21, fracturing his skull.——Dr. Jesse T. Duryea, former superintendent of Kings County Hospital, was presented with a bronze statuette by the attending staff, January 15.—— The board of education has appointed as director of physical training for the schools of Greater New York Dr. Luther Halsey Gulick, the inventor of basketball.——On February 4 the Society of Alumni of Bellevue Hospital held a dinner at Delmonico's, and presented to Dr. John W. S. Gouley a piece of silver in commemoration of the fiftieth anniversary of his connection with the hospital.

So-Called Specifics for Tuberculosis.—The committee on the prevention of tuberculosis of the Charity Organization Society of the City of New York has adopted the following preamble and resolution:

WHEREAS, It has come to the knowledge of the Committee on Tuberculosis of the Charity Organization Society that many so-called specific medicines and special methods of cure for tuberculosis have been and are being exploited and widely advertised, and

WHEREAS, The advertisements of some of these cures have made such reference to the Tuberculosis Committee of the Charity Organization Society, or to some of its members, as to create the inference that this committee, or its members, recommend or advocate the use of many such so-called specifics or special methods of cure for pulmonary tuberculosis, or consumption, and

WHEREAS, There is no specific medicine for this disease known, and the so-called cures and specifics and special methods of treatment widely advertised in the daily papers are in the opinion of the committee without special value, and do not at all justify the extravagant claims made for them, and serve chiefly to enrich the promotors at the expense of the poor and frequently ignorant or credulous consumptives, therefore,

Resolved, That a public announcement be made that it is the unanimous opinion of the members of this committee that there exists no specific medicine for the treatment of pulmonary tuberculosis, and that no cure can be expected from any kind of medicine or method except the regularly accepted treatment which relies mainly upon pure air and nourishing food.

PENNSYLVANIA.

Health Board Meeting.—Dr. Benjamin Lee, secretary of the State Board of Health, announces a meeting of city and borough health boards west of the Alleghenies in Pennsylvania, to be held February 12. The meeting is to consider measures to stop the spread of smallpox.

Warning.—We are in receipt of information from Allentown and Reading that an individual calling himself F. Whiting is endeavoring to collect money an account of THE JOURNAL, and of the American Medical Association. This person has no authority to make collections, and any information as to his present address will be appreciated by THE JOURNAL.

Philadelphia.

Typhoid Fever Cases and Deaths.—The health report for the week ended January 31 showed 325 new cases of typhoid fever. The new cases of this disease during January numbered 1,303, with 161 deaths. It is officially estimated that 4,000 cases of typhoid fever are now under treatment in the city.

The Coroner Was Busy.—January was an unusually busy month for the coroner. During the time 302 cases were investigated, an increase of 54 over the corresponding period of last year. There were 4 homicides and 14 suicides, and a large number of deaths from accidental asphyxiation and from falls.

Anti-Hospital Act Repealed.—The quick passage by the legislature of the Berkelbach bill, repealing the anti-hospital act, opens the way for the acceptance by Philadelphia of the proffered gift of $1,000,000 or more for the establishment of the Henry Phipps Tubercular Institute. The bill was the first one signed by Governor Pennypacker. The work of the institute will be begun within a few days in temporary quarters. There is some opposition by residents of the neighborhood to the location of the institution, but it is thought that this feeling will subside when the absence of danger of contagion is understood.

GENERAL.

Hawaiians protest against making their leper settlement a national leper colony.

The Mexican plague has extended to Guaymas and has also broken out in the soldiers' barracks at Mazatlan.

Gulf Quarantine Arranged.—Health officers representing Texas and Louisiana met at Galveston, Tex., January 26, and formed rules governing the shipping in the ports of those states.

Southern Pacific Hospital Cars.—This road will soon construct cars to be fully fitted out for medical and surgical aid and to be stationed on each division ready to be rushed to the scene of accidents when they occur.

Razlag's Leprosy Treatment.—Dr. Adolph Razlag is seeking a government to take up his plan of leprosy treatment which was mentioned in THE JOURNAL some time ago. He has sent a proposal to Washington by Consul McWade at Canton, China, near which city he is said to be curing lepers.

San Francisco Plague Report.—Dr. D. M. Currie gives, January 19, under direction of Surgeon A. H. Glennan, of the U. S. P. H. and M.-H. S., a review of the situation from which we note the following points: The Chinese object to autopsy,

and, having found that the sick who are examined and have a diagnosis of other disease established are not subjected to autopsy in case of death (as a rule), they report many cases of sickness in hopes of avoiding the autopsy which is held on bodies dead with suspicious signs or dead from indeterminable causes. They, however, can recognize typical bubonic plague and do not report such cases, knowing that autopsy is sure if the case is discovered. Some bodies, it is supposed, are removed from the city, but a spread of the disease is not probable from this cause, as observation has shown that few or no contacts contract plague. The report contains the following significant statement: "Except from the certificates of the attending physicians we have no means of ascertaining whether the whites in different parts of the city dying are infected with plague."

CANADA.

French-Canadians Banquet.—The French-Canadian members of the profession gathered in large numbers at the Place Viger Hotel, Montreal, on the evening of January 27, at the annual banquet of the Societe Medicale de Montreal. The event proved in every way most enjoyable.

Toronto's Health for January.—The number of contagious diseases reported in Toronto for January was as follows: Diphtheria, 57; scarlet fever, 105; typhoid fever, 12; smallpox, 5 cases, with 1 death. The medical health officer recommends an addition to the Isolation Hospital to be constructed at a cost of $30,000.

Vancouver Plague Quarantine.—Dr. McAlpine, medical health officer of Vancouver, B. C., received, January 22, a letter from the Board of Trade of San Francisco, stating that the plague is pretty well under control in that city, and that there have been no fresh cases since December 15. In view of this letter Dr. McAlpine does not think he would be justified in taking any immediate action with regard to the report of Dr. Fagan to the British Columbia government, and examine all passengers who arrive across the line in Vancouver.

Personal.—Dr. William Oldright, professor of hygiene in the medical department of the University of Toronto, with his son, Dr. H. H. Oldright, of St. Catherines, Ont., have returned from a trip to the West Indies, including Martinique.——Dr. W. W. Andrews, Mount Allison University, Sackville, N. B., has invented a microscope for dissecting purposes, which is said to be a very practical apparatus. Dr. George Hetherington, superintendent of the provincial lunatic asylum, N. B., entertained about thirty members of the St. John Medical Society at the institution one evening last week, when he delivered a general address on insanity.

FOREIGN.

King Edward has a mild attack of influenza.

French petroleum drinking is such an evil that measures are proposed to combat it.

Hydrophobia Germ.—Professor Sormagni of Milan is reported to have discovered the microbe of hydrophobia.

Thames Typhoid Scare.—The oyster source of typhoid in London has created a scare with regard to all edible products of the Thames river and threatens the business of the large population engaged in the fisheries.

Rejects Yellow-Fever-Mosquito Theory.—The Italian commission which has been studying yellow fever in Brazil reported February 3, at Rome, rejecting the theory of transmission by mosquitoes.

Weekly Edition of Archives de Medecine.—In entering on its eightieth year the Paris *Archives Gén. de Médecine* becomes a weekly instead of a monthly. It has included on its editorial staff such men as Claude Bernard, Trousseau, Duchenne de Boulogne, Velpeau and Broca. The present staff contains much young blood, and several new departments have been added.

Germans Report Value of Hypnotism.—The commission of experts in mental diseases, appointed by the German Ministry of Education a year ago to investigate the healing value of hypnotism, reports that it can be used in some instances to remove symptoms, but that it can not produce organic changes or cure epilepsy or hysteria. The report also remarks that hypnotism is less used than formerly. The commission consisted of Professor Mendel and Drs. Gock, Mentor and Aschenborn.

Formic Acid Vital to Organism.—Dr. Garrigue of Paris is reported in the lay press to have enunciated the theory that formic acid is a necessary product of the blood and that microbic invasions use it up and that formic acid is a valuable treatment in such cases, as it creates the oxygen that is essential to cell life. This is interesting in view of the fact that formic acid may be obtained from urine, sweat and blood and in view of the recently-reported successes with the injection of formalin solution in septicemia.

Matches Without Deadly Phosphorus.—A bill was proposed in the German reichstag, January 29, to prohibit the use of phosphorus in making matches on the ground that the government had acquired the patent of a new igniting substance harmless to the health of the employes and had placed it at the disposal of the match factories. In discussion, attention was called to the fact that France has a standing offer of $12,500 for the invention of a satisfactory substitute for phosphorus and the prize has not yet been awarded.

Diseases for Which Compulsory Notification is Advocated.—The Paris Académie de Médecine recently voted the following list of 14 diseases that should be invariably notified: Beside typhoid fever, exanthematous typhus, variola, varioloid and scarlet fever, measles, diphtheria, cholera and choleriform affections, plague, yellow fever and dysentery, it includes miliary fever, puerperal infections "when secrecy in regard to the pregnancy has not been enjoined," and also ophthalmia neonatorum under this same restriction. The list of diseases in which notification is optional includes 9: Pulmonary tuberculosis, whooping cough, la grippe, pneumonia and bronchopneumonia, erysipelas, mumps, leprosy, tinea, purulent conjunctivitis and granular ophthalmia. The list was drawn up at the request of the government. Laveran was anxious to have tuberculosis included in the first list and dysentery placed on the optional list, but was voted down. Brouardel stated that the public disinfection service is not prepared to undertake such a task as would be required if chronic tuberculosis were included in the compulsory class. The special committee had reported in favor of adding epidemic cerebrospinal meningitis and pneumonia to the first list, but were not heeded.

PARIS LETTER.

Hospital Reform in Paris.

Important reforms in the management of Paris hospitals are, it seems, about to be carried out. One of the most important is the suppression of the excessive centralization of all administrative measures, which prevented the hospitals from being relatively independent institutions such as those of London or New York. In Paris everything connected with any one of the hospitals must be reported to the central administration, which has its offices on Avenue Victoria, near the Hotel de Ville. The director of the hospital is a salaried employe, having no board of trustees to consult, and carrying out the wishes of the physicians in a more or less perfunctory manner. It will be sought to do away with all of this by giving each hospital its own autonomy, its annual budget. Each director will be able to show more initiative, and he will be counseled by a certain number of physicians and men known in the hospital quarter for their philanthropy and administrative ability. Such a reform would cause the French hospital to resemble more closely the English or American hospital.

Dr. H. de Rothschild's New Polyclinic.

A polyclinic was opened last month in one of the densely populated quarters of Paris. The money for its construction was furnished by Dr. H. de Rothschild, a member of the wealthy family bearing that name. The important specialties will each have a special section, such as ophthalmology, laryngology, orthopedic surgery, and radiography. Attached to the establishment is a large library of 10,000 volumes, chiefly concerning children's diseases. The inauguration ceremonies were carried out with some éclat, the minister of the interior, M. Chaumié, being present.

Bouchard and Robin at Variance.

At the Cairo Medical Congress, Dr. Bouchard made an important communication on the modern tendencies of therapeutics, and certified that general treatment was not apt to be so beneficial as local treatment. He described the results he had obtained by hypodermic injections of salicylic acid in rheumatic arthritis. Dr. Bouchard did not seem to wish to convey the impression that he was the inventor of this method, which is applied in many ways nowadays. In a recent number of the *Presse Médicale* Prof. Albert Robin

has published a letter in which he expresses his astonishment in seeing that Dr. Bouchard does not mention those who had previously carried out experiments on this very subject. He then quotes a passage from his work on "Diseases of the Stomach," p. 269, in which he refers to the use of drugs locally, and to the possibility of using small, minute doses in such cases. It yet remains to be seen how Professor Bouchard will accept this from Professor Robin, who is a younger man, and who has not the weight nor the universal reputation of the disciple of Charcot.

Lannelongue and Landouzy Decorated by the Emperor of Germany.

Professors Lannelongue and Landouzy, who attended the recent congress of tuberculosis held in Berlin, have been favored with the insignia of knights of the Royal Order of the Crown of Prussia.

Pasteur's Monument in Paris.

The site for Pasteur's monument has not yet been chosen definitely. It was to have been erected on the Place de Medecis opposite the Pantheon, then near the Sorbonne, lastly in the Avenue de Breteuil, opposite the dome of the Invalides. When work on the foundations was to be started it was found that the view of the Invalides might be interfered with on account of the height of the monument, so that the definite site remains an unsettled question.

Correspondence.

Dr. Croftan's Iodin Starch Test for Adrenal Extract.

CHICAGO, Jan. 29, 1903.

To the Editor:—Dr. S. P. Kramer, under the above caption (THE JOURNAL, Jan. 24, p. 257), mentions the fact that a series of organ extracts and ferment solutions other than adrenal or hypernephroma extract possess the power of decolorizing iodin starch solution. The inference is that this test is, therefore, of no value in the differentiation of adrenal tumors of the kidney from other tumors of this organ.

That the preparations enumerated by Dr. Kramer can decolorize iodin starch solution is known to me. The decolorization is, however, by no means so prompt nor so complete. I could supplement his list by a considerable number of other bodies with reducing properties that can do the same. The practical value of the hypernephroma test is not, however, impaired hereby. For, as I took pains to determine and as I expressly mentioned in my "Note," no other normal or abnormal constituent of the *kidneys* gives this test. It is hardly probable that the surgeon or pathologist will look for "Thyroid (P. D. & Co.), thymus (Armour), extract of meat (Liebig), pepsin (Fairchild), or pancreatic extract (Dry)" when attempting to identify a tumor of the kidney. None of these commercial products, moreover, give the other tests for adrenal tissue that I have described, with the exception of thyroid gland that may occasionally produce glycosuria, and pancreas that possesses diastatic powers.

I should advise Dr. Kramer to write me first hereafter before jumping into print with a criticism that is so misleading to the casual reader. ALFRED C. CROFTAN.

The Nobel Prizes, the Carnegie Institute, and the Promotion of Scientific Research.

CHICAGO, Jan. 26, 1903.

To the Editor:—The beneficiaries of the Nobel fund receive $40,000 as a reward for past achievement; the beneficiaries of the Carnegie fund, according to the last report of the "Institution," are to receive "not more than $1,000 a year" as an incentive to future achievement. The recipients of the Nobel prizes have arrived at the zenith of their scientific career and, presumably, do not need this stipend. The recipients of the Carnegie money are expected some day to climb to equal heights, presumably with the aid of a thousand dollars a year.

It is stated expressly that the men who are made beneficiaries of the Carnegie Institution must have shown "particular aptitude for the prosecution of original investigations," must be willing to devote all their time to advance research, and must agree to publish nothing without the approval of the Carnegie directors. In return they are to receive an emolument that approximately equals the salary of a policeman, a letter carrier or a street-car conductor.

It seems altogether improbable that any man who has really had an opportunity to show particular aptitude for original research will avail himself of this pittance under these conditions. It all depends on what we agree to understand by aptitude for original investigation. Much work passes for original research that is merely descriptive in character. The fact that a certain self-evident phenomenon has not been investigated and published heretofore may very well signify that no one has so far considered this particular fact or phenomenon worth investigating. Nine-tenths of the "research" that floods our journals consists of just such work, and constitutes in no way the solution of any problem that seems to urgently call for solution. The pathologist describes a tumor of the brain—this particular tumor, it is true, may never have been described before, but a thousand others like it have been described and redescribed; the physiologist measures the contractions of the unstriped muscles of the cat's bladder; the anatomist describes one of the thousand possible abnormalities in the course of the colon; the bacteriologist finds a new microbe in the shrimp, and bestows on it a long name, et cetera ad nauseam. This is not research. This is carrying the hod and carting bricks. True, some one must do this work, and it is well that some one should be doing it. The value of such investigations, however, is exactly on a par with the work of a corps of surveyors in a hitherto unsurveyed territory, or with the first reports of a gang of fire inspectors in regard to the architecture of this, that or the other of a thousand buildings. What we need are constructive geniuses, minds that can make this heterogenous conglomerate of disconnected facts the basis of some new conclusions; minds that, standing on such a fundament, can see far and beyond and can tell us what they see. Such men are rare; such men *have* shown a particular aptitude for research; such men receive the Nobel prizes, and such men are not for sale for $1,000 a year.

Even those young workers who, under the direction of a competent teacher of technic and a prolific purveyor of "ideas" and "problems," are willing to comply with the rules of the Carnegie Institution are ultimately damaged in their career. Assuming them, *exempli causa*, to be medical men, then three fields of activity stand open—practice, teaching, research. No one man can very well achieve great things in all three fields; it is quite feasible, however, for a man to practice or to teach and still find time to do creditable research work besides. It must be a poor practitioner and a poor teacher indeed who cannot command $1,000 a year by the time he is "particularly apt." Twenty laboratories are open to a man with such ambitions in this country, and fifty more abroad, where he will be received with open arms. While carrying on his research he is building up his practice or establishing his reputation as a teacher. The victim of the Carnegie munificence, as administered by the Carnegie directors, can do neither—he simply researches—and in so doing he gambles with his time; for unless he is investigating some phenomenon that is so patent that he *must* get some results—and such phenomena are manifestly not worth investigating at a sacrifice—he may find at the expiration of a year or of two years that the results of his investigation are *nil* or negative, for the reason that his or his chief's working hypothesis was wrong; this happens a thousand times in all laboratories. One might as well say to a promising young man with a philosophic bent of intellect: "Here, young man, is $1,000. This will enable you to eat for a year. Now show your particular aptitude for philosophy; philosophize for the term of your fellowship (subject to the approval of the Carnegie directors) and become an Emerson." Or, "Here, young friend, you have occasionally broken out into poetry; take this thousand, agree to do nothing else but follow your Muse, and become a Longfellow, to the glory of the Carnegie Institution." We do not think that an Emerson, a Longfellow, a Newton, nor a Lavoisier has ever been lost to this world for the lack of a thousand a year. A true

investigator can not be repressed, nor can he be created by relieving him, in a fashion, at the outset of his career of the most acute responsibilities incident to keeping his body and soul together.

What the Carnegie Institution promises to furnish by its research fellowships are technical assistants to a few men in this country who are already at the head of well-equipped laboratories and who, if they have any inspiration in their own souls, should be, and are, surrounded by a corps of inspired and enthusiastic volunteer workers. The stipend of "not more than $1,000" will attract few constructive geniuses to such positions.

What we need, apparently, is a Mæcenas of Science who will not bestow a fortune on the successful worker when he is resting on his laurels and when he no longer needs support; and who will not offer a pittance so miserable that it is barely sufficient to keep body and soul together to the struggling youth—with possibilities—who is reaching for his laurels; but who will endow the investigator in the full vigor of his working manhood, and after he has had an opportunity to show his contemporaries that he is really "particularly adapted to prosecute original investigation," with a sum of money sufficiently large to enable him to live decently and comfortably and thus to carry out unhindered by financial worries the work that he may reasonably be expected to accomplish for the good of humanity. ALFRED C. CROFTAN.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

FORMALIN INJECTIONS FOR SEPTICEMIA.

LISBON, IOWA, Jan. 30, 1903.

To the Editor:—On page 253, January 24, in "Formalin Injections for Septicemia," do you state the proportions correctly? If not, will it not be the means of causing deaths in patients of physicians who rely on it being correct? I have used formalin in a case where I was called as consultant in puerperal septicemia and the patient seems to be slowly convalescing. I used 500 c.c. of a 1 to 5,000 solution of formalin—in median basilic vein of one arm one day and the same amount in same vein of the other arm the next day. E. BURD.

ANS.—On consulting our correspondent, we find that the strength should have been stated as 1 to 5,000. A case is reported in which the use of a 1 to 2,500 solution caused collapse, but McGuire (*London Lancet*, Dec. 1, 1900) used a strength of 1 to 800 on himself without serious results. This illustrates the uncertainty of the effects of these injections and emphasizes the necessity of extreme care. Especial attention is called to the Editorial in this issue.

PRACTICE IN ARIZONA AND NEW MEXICO.

MINNEAPOLIS, Jan. 26, 1903.

To the Editor:—Will you kindly inform me through your columns of the requirements for practice of medicine in Arizona and New Mexico? To whom can I write for further information? S. E. S.

ANS.—The medical practice law of Arizona requires the passage of an examination by the board and an approved diploma. The present status of the law is a little uncertain as it has very recently been declared unconstitutional by a local court. Whether the case will be carried higher, we can not say. In New Mexico all but the graduates of eight medical colleges will have to pass an examination. The institutions whose diplomas exempt from examination are the following universities: Pennsylvania, Harvard, Johns Hopkins, Columbia of New York, Missouri, Yale, Michigan and Minnesota. Dr. W. G. Hope, Albuquerque, N. M., is the Secretary of the New Mexico Board of Health, and Dr. Wm. Duffield, Phœnix, Ariz., is the Secretary of the Arizona Board of Medical Examiners.

THE PHYSICIAN AND THE PHARMACOPEIA—METHOD OF REDUCING STRENGTH OF SOLUTIONS.

DES MOINES, IOWA, Jan. 30, 1903.

To the Editor:—Another example of how ignorant competent physicians are of the U. S. Pharmacopeia is evident in Dr. Hardcastle's statement published in your issue of January 24. The Doctor's "Method of Reducing Strength of Solutions" is the one explained, adopted, and used by the U. S. P. This is the official rule for making all dilutions. (See U. S. P. on acids, alcohol, etc.)

ELI GRIMES.

COW-POX SERUM INJECTIONS.

Jan. 28, 1903.

To the Editor:—Has the serum of a cow suffering from vaccinia ever been injected into a patient afflicted with smallpox; if so, with what result? I have never read of any such experiments in my limited supply of literature. H. L. F.

ANS.—We have not seen any record of such experiments. Would not this be an interesting field for investigation?

TRAINED MALE NURSES.

736 HUDSON AVE., ST. PAUL, MINN., Jan. 29, 1903.

To the Editor:—I am interested in becoming a trained nurse, but do not know what to do or where to go. Can you kindly inform me? Is the male nurse in demand? I would like some Eastern school if I could. FRANK KODA.

CASE OF CONGENITAL MEASLES.

BENTLEY, ILL., Jan. 26, 1903.

To the Editor:—I wish to report the birth of a child Jan. 23, 1903, with the measles in eruption. The mother's eruption began Jan. 16, 1903, after tardy prodrome. Both doing well.

Very Truly, F. S. AGLER, M.D.

WANTS A SEQUARIAN LAMP.

LINTON, IND., Jan. 24, 1903.

To the Editor:—Where can I obtain a Sequarian lamp?

M. N. THAYER.

Marriages.

JOHN H. RINDLAUB, M.D., to Miss Marie Douglas, both of Fargo, N. D., January 31.

LOUIS A. GAUDIN, M.D., Convent, La., to Miss Louise Ilsley of New Orleans, January 21.

FRED SCRIVER SPEARMAN, M.D., to Miss Olive L. Pooler, both of Hawkeye, Iowa, Nov. 7, 1902.

J. ABNER PENTON, M.D., Goodwater, Ala., to Miss Mildred Parker of Equality, Ala., January 27.

LUTHER HAYS, M.D., Cullman, Ala., to Miss Ethel Olivia Watson of Vinemont, Ala., January 20.

JOHN DOUGLAS, M.D., Florence, Ala., to Miss Marguerite Pearl Burford of Birmingham, January 28.

CHARLES DICKENS WILLIAMS, M.D., Cleveland, Ohio, to Miss Annie Martin of Lisbon, Ohio, January 28.

JOHN L. WORCESTER, M.D., Birmingham, Ala., to Miss Elizabeth Blakeslee of Kansas City, January 28.

WILLIAM C. BLOOMER, M.D., Cleveland, Ohio, to Maud McConoughey of Chagrin Falls, Ohio, January 19.

EDGAR K. WARD, M.D., Park City, Utah, to Miss Myrtle Hale of San Francisco, at Salt Lake City, January 15.

T. A. JONES, M.D., Springfield, S. C., to Miss Annie E. Sawyer of Sawyerdale, S. C., at Perry, S. C., Dec. 17, 1902.

WILLIAM O. POWELL, M.D., Mackinaw, Ill., to Mrs. M. Louise Coney of Bloomington, Ill., in Chicago, January 21.

PEDER S. BRUGUIERE, M.D., San Francisco, to Miss Maryan Andrews of Pine Knoll, Cal., at Reno, Nev., Dec. 21, 1902.

JOHN W. BRAMLETT, M.D., Campobello, S.C., to Miss Eva Wilkes of Chester, S. C., at Spartanburg, S. C., January 26.

I. R. SHUMAN, M.D., Wagon Mound, N. M., to Miss Elizabeth C. Gotwats of Norristown, Pa., at Santa Fe, N. M., Oct. 4, 1902.

Deaths.

Eugene Foster, M.D. Medical College of Augusta (Ga.), 1872, a member of the American Medical Association; professor of practice of medicine and sanitary science and dean of the faculty of the medical department of the University of Georgia; president of the Georgia Medical Society in 1885; president of the Richmond County Medical Association in 1890; member of the New York Medicolegal Society; member of the American Public Health Association; member of the American Surgical Association; president of the board of trustees of the Georgia State Sanitarium; president of the Augusta Board of Health for twenty-five years, and one of the most prominent and highly-esteemed physicians of the state, died at his home in Augusta, January 23, after an illness of three months, from

cancer of the stomach, aged 53. He was an acknowledged authority on municipal sanitation, and his contributions to medical literature are numerous and valuable. The student body of the medical department passed suitable resolutions regarding the death of Dr. Foster.

Harrison Augustus Lemen, M.D. St. Louis Medical College, 1864, some-time president of the Denver Medical Society and of the Colorado State Medical Society; emeritus professor of principles and practice of medicine in the medical department of the University of Denver, and for many years a member of the State Board of Health, died at his home in Denver, January 21, after a long illness from kidney disease, aged 62. He retired from practice in 1893.

Margaret Stanton, M.D. College of Medicine, Syracuse University, 1876, formerly president of the Onondaga County Medical Society, died at her home in Syracuse, January 22, from tuberculosis, after an illness of several years, aged 58. At a special meeting of the Onondaga County Medical Society resolutions were passed lamenting the death of Dr. Stanton, offering a tribute to her memory and extending sympathy to her family.

Patrick H. Conley, M.D. Rush Medical College, Chicago, 1887, a member of the attending staff of Cook County Hospital, surgeon to the West Side Hospital and professor of obstetrics and diseases of children at the Chicago Clinical School, died, February 3, at Mercy Hospital, Chicago, after an operation for appendicitis, aged 43.

Eugene Davis, M.D. Medical College of Indiana, Indianapolis, 1893, a member of the American Medical Association and professor of ophthalmology at the Medical College of Indiana, died at his home in Indianapolis, January 19, from typhoid fever, after a short illness, aged 30.

Christopher Kiersted, M.D. Albany Medical College, 1846, a lineal descendant of Hans Kiersted, the first surgeon to settle in New Amsterdam, died from gastritis at his home in Jersey City, N. J., January 23, after an illness of several days, aged 81.

Joseph Edwin Clark, M.D. College of Physicians and Surgeons, New York, 1849, for many years president of the medical board of St. Peter's Hospital, Brooklyn, died in that institution, January 19, from pneumonia, aged 79.

Cyrus Allen, M.D. New York Homeopathic College and Hospital, 1864; Berkshire Medical College, Pittsfield, Mass., 1865, died from heart disease, January 14, after an illness of one year, at his home in Avon, N. Y., aged 65.

David C. Pusey, M.D. University of Louisville, Ky., 1853, president of the Meade County Medical Society and chairman of the board of health, died at his home in Brandenburg, Ky., January 20, after an illness of a year.

R. Otway Owen, M.D. Medical College of Virginia, Richmond, 1889, of Kansas City, Mo., died at San Bernardino, Cal., January 19, from concussion of the brain due to a runaway accident, six days before, aged 38.

E. Edwin Spencer, M.D. Eclectic Medical Institute, Cincinnati, 1860, chairman of the Cambridge (Mass.) Board of Health, died suddenly at his home in Cambridge, January 19, from heart disease, aged 69.

Charles W. Vimont, M.D. University of Louisville, 1889, died suddenly at his home in Chicago, February 1, from angina pectoris, while apparently convalescent from an attack of typhoid fever, aged 37.

Adam T. Van Vranken, M.D. Albany Medical College, 1873, a member of the New York State Medical Association, died at his home in Watervliet, N. Y., January 19, from paralysis, aged 55.

Joseph M. Donaldson, M.D. St. Louis Medical College, 1876, of Kansas City, Mo., died at Excelsior Springs, Mo., January 22, from nephritis, after an illness of several months, aged 53.

C. Everett Watson, M.D. Cleveland Homeopathic Medical College, 1898, of Conneaut, Ohio, died at Phœnix, Ariz., January 18, from laryngeal tuberculosis, after an illness of two years, aged 27.

Margaret Taylor Shutt, M.D. Cornell University, New York, 1899, a member of the American Medical Association, died at her home in Springfield, Ill., January 24, from typhoid fever.

John J. Manion, M.D. Rush Medical College, Chicago, 1895, died at his home in Charlotte, Iowa, January 24, from typhoid fever, after an illness of three weeks, aged 25.

Alpheus Dove, M.D. Eclectic Medical Institute, Cincinnati, 1854, died from paralysis at his home in Brookville, Ohio, aged 74.

Association News.

NEW ORLEANS COMMITTEE OF ARRANGEMENTS.

Meeting held in the rooms of the Orleans Parish Medical Society, New Orleans, Jan. 26, 1903.

[*Abstract from the New Orleans Med. and Surg. Jour. of February.*]

There were present with the Committee of Arrangements Drs. Frank Billings and George H. Simmons, President and Secretary of the American Medical Association.

Reports on Finance, New Membership and Entertainment.

DR. CALLAN, chairman of the Finance Committee, reported that subscriptions had been received aggregating $2,910 from physicians and $435 unsolicited from laymen. Of the physicians in the city but 2 had refused to contribute, 47 had not been seen, 18 were to answer later, and 197 had contributed sums ranging from $5 to $100; $259 in cash has already been collected. The subscriptions are due March 1, 1903. The committee is still continuing the work, and intends soliciting subscriptions from the physicians of Louisiana.

DR. F. W. PARHAM, chairman of the Committee on New Membership, said that 6,376 circulars had been sent out to members of state societies in Alabama, Louisiana, Mississippi, Florida, Arkansas and Texas and that Tennessee, Georgia and the Carolinas would be covered.

DR. L. G. LEBEUF, chairman of the Committee on Entertainment, reported progress as follows: Mrs. Maurice Stern had offered the use of her home and spacious grounds. Dr. Bloom had offered to take the Surgical Section or any fifty members of the association on a yachting party to the Tchefuncta river. The committee would arrange a river excursion on the Chalmette or some other big excursion steamer. An evening tea for the ladies would be held in the St. Charles Hotel palm garden. He mentioned some citizens who would probably extend the use of their homes and grounds for entertainments. In addition, several individual physicians had agreed to entertain at small dinings.

Meeting Places.

DR. JOHN F. OECHSNER, chairman of the Committee on Halls and Meeting Places, then submitted his report. It had been the intention of the committee to use Tulane Hall as a center, but in accompanying Drs. Billings and Simmons during the afternoon in a short visit to the various halls in view, he had come to the conclusion, after a conference with these gentlemen, that another arrangement would be better. Drs. Billings and Simmons were of the opinion that Washington Artillery Hall offered an ideal place for the location of the exhibit hall and one of the large sections. Another smaller hall in the same building was available. The comparison of floor space showed that in Washington Artillery Hall there would be an available area for exhibits of 11,000 square feet, as against 3,966 square feet available for this purpose in Tulane Hall.

The discussion of available halls in proximity to Washington Artillery Hall then followed. DR. FRIEDRICHS moved that Washington Artillery Hall be selected as a center. DR. PARHAM asked for Dr. Simmons' opinion. DR. MATAS requested Dr. Simmons' opinion as to disposition of various sections.

DR. SIMMONS had only seen the Council Chamber, Washington Artillery Hall and Odd Fellows' Hall. The exhibit hall he considered the most important factor under consideration. The registration bureau and postoffice should be central and in immediate proximity to the exhibit hall. He considered Washington Artillery Hall ideal for the purpose. The main hall would be ample for the exhibitors, registration and information bureaus and postoffice. He had seen Tulane Hall, and considers it not half large enough for the purpose. The various halls in Tulane Medical College and in the Polyclinic he advised the committee not to consider. He believed

that the amphitheater was not at all suitable for meetings of medical associations; while it offers an opportunity for the man reading the paper to be heard, the arrangement is not such as to be favorable for the discussion, which is often the most important part of the proceedings. He had seen Odd Fellows' Hall and considered it somewhat objectionable, because of the noise on Camp street. Quiet is an important factor. The Washington Artillery Hall, with its 11,000 square feet, he believed too large for any section, and suggested the use of canvas partitions. If a room is too large it will encourage the presence of idlers in the rear, who, not being themselves able to hear, talk and disturb the proceedings.

It was suggested that it would be advisable to put sections on medicine and surgery as near as possible. All sections wished to be near these two sections.

As a substitute to Dr. Friedrichs' motion, DR. DE ROALDES moved that the selection of the central meeting place be left to the discretion of the Committee on Halls and Meeting Places. He believed that immediate action would be premature.

DR. MATAS considered it advisable to bring up the question and decide it at once. The Committee on Exhibits had already planned to utilize Tulane Hall, and if a change were to be made it must be enabled to go to work at once to revise plans.

DR. KOHNKE suggested hearing the report of the Committee on Exhibits. At the request of the chair, Dr. Friedrichs withdrew his motion, and Dr. Kohnke, chairman of the Committee on Exhibits, then delivered his report.

The committee, believing that the selection of Tulane Hall was final, had drawn up diagrams of the space available for exhibits. There was a total of actual space, including the galleries, of 3,966 square feet, which would yield a total rental of $6,330, the prices for these spaces varying from $150 to $40. In closing, Dr. Kohnke urged on the committee the necessity for immediate action with regard to exhibit hall.

DR. BILLINGS said that in arranging for the meeting of a large body of medical men there are two most important considerations: First, comfortable meeting places, which should be easy of access. Second, sufficient hotel or other boarding accommodations. He believed Tulane Hall unsuitable for the exhibit hall; it would be absolutely impossible to get exhibitors to take space in the gallery. The smaller room in this building is not desirable. He considered the college amphitheater as a most undesirable meeting place—although for a medical body, still the atmosphere of medical colleges is not pleasing. As to the Tulane Medical College, he believed that the amphitheater on the third floor could not be used because of the number of stairs to climb to it. Washington Artillery Hall he considered an ideal place. He made the suggestion that a restaurant could be run, which would furnish a source of revenue. He did not approve of free lunches. It had always been a problem at previous meetings of the Association to secure an adequate midday meal during the noon hour. Churches had heretofore been the most satisfactory meeting places. Distance is not an objection, provided places of meeting are on a car line and within a few minutes' ride from hotel headquarters.

DR. FRIEDRICHS made his motion to read that the committee select Washington Artillery Hall as a location for the exhibit hall, bureaus of registration and information and postoffice, provided same can be secured. The motion carried.

DR. BILLINGS suggested that the Committee on Exhibits make a diagram of their hall, set a price on the whole, and divide it up as they saw fit.

Badges.

In the absence of DR. GESSNER, chairman of the Committee on Badges, DR. WALKER submitted the committee's report. The committee believed that 5,000 badges would be necessary, distributed as follows: Members, 3,000; guests, 1,500; exhibitors, 500; delegates, 150; sections, 24; committees, 50.

In discussing, DR. SIMMONS mentioned the fact that the badges for delegates were furnished by the Association. He advised against expensive badges, and did not consider guests' badges necessary. However, not over 50 might be provided for invited guests; 1,000 badges for ladies and 500 for exhibitors would be ample. He considered a ribbon most suitable. It should be demanded of every one that he or she show a badge of some sort before being admitted to the exhibit hall. Heretofore the exhibit hall had been open to the public, and such was objectionable both to the profession and to exhibitors.

DR. WALKER showed a design for a badge which the committee had selected. The cost, $175, with satin ribbons at $43, would aggregate $218. If finer ribbed silk ribbons were used it would bring the total expenditure up to $335. Various suggestions as to designs were made.

DR. OECHSNER considered that the committee should see to it that the badges should be worth preserving, and was of the opinion that the committee should not limit itself to $350 for this purpose.

Banquets.

DR. DE ROALDES, chair of the Committee on Banquets, asked for information from Dr. Simmons as to banquets of various sections.

DR. SIMMONS said the sections on surgery and gynecology sometimes combine in a banquet. The section on practice of medicine usually has a banquet, and the sections on laryngology and ophthalmology usually combine. He would suggest writing to the various chairmen of sections not later than February 15 for information with regard to the wishes of their sections in this respect. Each section pays its own banqueting expenses.

THE CHAIR stated that communications had already been sent out to the various chairmen in this regard. From one of the chairmen of sections came the suggestion that smokers would be more desirable in every respect than a formal banquet.

DR. BILLINGS said the arrangements for banquets were usually partially made on account of neglect of the members of the sections to signify their wishes. He believed the idea of general smokers to be a good one, that is, to have on the first night of the meeting—the only night of the meeting which is available—two or three smokers for the general membership.

Information Bureau.

DR. FRIEDRICHS, chairman of the Bureau of Information, reported as follows: This committee has held several meetings and has adopted the following plan to carry out its work: An apartment will be selected at the place of the general meeting. The committee recommends an arrangement with the Committee on Registration to have a place in common, where the work of the two committees can be more efficiently carried out. This room will be fitted up with telephone and connected with the messenger service. A sub-committee is collecting all needed information about the city and state for use of visitors.

From the present outlook I feel confident that this committee will have everything in readiness at least a month in advance of the time of the meeting.

Publicity.

DR. FELIX A. LARUE, chairman of the Program and Publication Committee, said: I beg to state that we have had very little to do. The *New Orleans Medical and Surgical Journal* has, from time to time, contained news of general information, which was sent to THE JOURNAL of the American Medical Association and other journals throughout the country.

Registration.

DR. R. MATAS, for the Committee on Registration, reported that instructions as to his bureau had been received from the treasurer, and the details would be carried out when a definite location had been assigned.

Hotels.

DR. MOSS, representing Dr. Martin of the Committee on Hotels, reported that he knew nothing of anything done since the last meeting of the Committee of Arrangements, November 15, except the negotiation with Ingram's Boarding House Agency, who would agree to take charge of the meeting for the sum of $200, to be paid by the committee. Or this agency would take the matter in charge for $100, provided they were allowed the privilege of issuing tickets to each applicant for a location, these tickets to be paid for by the applicant, to

cost $1.00, the price of which would be remitted on the board bill of applicant. This last arrangement did not meet with the approval of the committee.

DR. SIMMONS considered the work of this committee as of the highest importance. He considered that the attendance at the meeting would be about 4,000. Heretofore considerable overcrowding had been experienced in hotels. He would suggest that the Association would not be long in coming again if its meeting were well managed this time. He believed that private boarding houses are far better than crowding members into hotels. He cited the instance of the British Medical Association, at which meeting nearly all of the visitors were accommodated in private families, not really boarding houses. As to hotels, Dr. Simmons urged the necessity of getting from each proprietor prices for rooms, with bath, without bath, for one, two, three or four in a room; these rates to be given in writing and published in advance. Some hotel keepers do not care to furnish this information in writing. However, they can be given to understand that unless these conditions are complied with no notice will be made of these establishments in the advertising matter sent out.

Citizen's Auxiliary Committee.

MR. CHARLES FARWELL, chairman of the Citizens' Auxiliary Committee, reported that he had secured a number of ladies who had consented to act on the ladies' reception committee, of which Mrs. Samuel Delgado was chairman.

Medical Organization.

Conference on Organization.

A conference on organization by representatives of the state societies of Louisiana, Alabama, Arkansas, Florida and Mississippi was held at the Orleans Parish Medical Society rooms, New Orleans, January 27. Among those present were Drs. W. E. B. Davis, Alabama; J. P. Runyan, secretary of the Arkansas State Medical Society; J. H. Pierpont, president of the Florida State Medical Society; S. C. Red and H. A. West, president and secretary of the Texas State Medical Society; H. W. Folkes, J. F. Hunter, Mississippi; Isadore Dyer and W. M. Perkins, president and secretary of the Louisiana Medical Society; Dr. W. W. Hall, Aquilla, Miss.; some fifteen others interested in organization, and the president and secretary of the American Medical Association.

DR. FRANK BILLINGS acted as chairman and spoke first, calling attention to the reasons for such a conference and to the value to be derived from an organized profession, reviewing the work already accomplished. The difficulties already surmounted were referred to, and those yet to be overcome were outlined.

DR. SIMMONS called attention to the necessity of organization if the profession is to have any influence, and especially to its value to those who are isolated. He told of the new relationship of the National Association to the state society and the responsibility of the latter in creating the legislative body of the American Medical Association. It will not be long before it will be realized that one of the highest honors a state society can confer on a member will be to elect him to represent the state in the House of Delegates of the American Medical Association.

DR. W. E. B. DAVIS reviewed the history of the Alabama State Association, stating that the scheme now adopted by the American Medical Association for state societies originated in Alabama thirty years ago, and has proved wonderfully successful in spite of the fact that it had none of the advantage that will be had through coöperation when all the states are organized in like manner. He spoke of the fact that they have a record of every man licensed to practice in the state, know exactly how many there are, and where they live.

DR. RUNYAN of Arkansas stated that his state society had adopted the constitution recommended by the American Medical Association and described how well it is working. Heretofore there were no county societies, and at the last meeting the state society had less than 300 members. It has already increased to nearly 800. There are ten councilor districts, and the councilors are actively at work. For the present the per capita tax for state dues is $2.00, which is paid by the county societies.

DR. PIERPONT of Florida said that his state was poorly organized, the state society having less than 175 members. They hope to adopt the American Medical Association constitution for state societies at the next meeting.

DR. RED of Texas spoke of the serious difficulties which confront them in that state. The size of the state is one, and the fact that some of the large district societies are opposing the movement is the other. He thought, however, that the plan recommended would be adopted, modified by dividing the state into 17 districts, and have the county form the district and the districts form the state society.

DR. WEST also spoke of the difficulties in Texas, but thought that his state would come out all right next April and would be in line.

DR. HUNTER of Mississippi said that a committee on reorganization had been appointed and would report favorably on the adoption of the recommended constitution.

DR. DYER said that Louisiana will be in line next April, and that the committee had already printed the constitution adopted by the American Medical Association. Louisiana has already adopted the card index system for keeping a record of those licensed to practice in the state, and it is now about complete.

A general discussion then took place, nearly all present taking part. All were enthusiastic in believing that the plan now being adopted would result in an organized profession, such as was never thought possible heretofore.

Valley County (Neb.) Medical Society.

This society met at Ord, January 14, for organization and adopted the constitution and by-laws suggested by the American Medical Association. The officers elected were: Dr. Frederick D. Halderman, Ord, president; Dr. Chester A. Brink, Ord, vice-president, and Dr. D. S. Hogan, North Loup, secretary-treasurer.

Midland County (Mich.) Medical Society.

Dr. Harry B. Landon, Bay City, state councilor, organized this society at Midland, January 14. The following officers were elected: President, Dr. Abram D. Salisbury, Midland; vice-president, Dr. H. Watson, Edenville; secretary, Dr. William H. Brock, Midland, and treasurer, Dr. J. Henry Johnson, Midland.

Greene County (Tenn.) Medical Society.

The physicians of Greene County met in Greeneville, January 5, and organized this society with an initial membership of 17, and the following officers: Dr. John C. Marshall, Chuckey City, president; Dr. Eliot B. Smith, Greeneville, vice-president; and Dr. S. Walter Woodyard, Greeneville, secretary. The society will affiliate with the Medical Association of the State of Tennessee.

Summit County (Ohio) Medical Society.

In our issue of Nov. 1, 1902, the meeting of this society for reorganization on the lines proposed by the American Medical Association was noted; at the annual meeting in December the reorganization was effected, and on January 6 the following officers were elected: President, Dr. John H. Seiler; vice-president, Dr. Wellington W. Leonard; secretary, Dr. Edward W. Barton, and treasurer, Dr. Charles E. Norris, all of Akron.

Obion County (Tenn.) Medical Society.

Dr. Isaac A. McSwain, Paris, councilor for the district, organized the Obion County Medical Society, at Union City, Dec. 8, 1902, with 30 members. Dr. McSwain explained the need for organization and the plan proposed by the American Medical Association, after which permanent organization was effected, with the following officers: President, Dr. E. H. White, Rives; vice-presidents, Drs. P. N. Matlock, Mason Hall and J. M. Rippy, and secretary and treasurer, Dr. F. W. Watson, Union City.

Lorain County (Ohio) Medical Society.

This society met at Lorain, January 20, under the direction of Dr. Thomas C. Martin, Cleveland, councilor for the Fifth District and reorganized under the provisions of the new constitution suggested by the American Medical Association for county societies. The following officers were elected: Dr. Olney B. Monosmith, Lorain, president; Dr. Orlando T. Maynard, Elyria, vice-president; Dr. Clarence B. Wean, Lorain, secretary; Drs. Charles H. Cushing, Elyria, William C. Bunce, Oberlin, and Abraham N. Garver, Lorain, censors, and Dr. Ewan Cameron, Lorain, delegate to the state society.

Boyd County (Ky.) Medical Society.

The physicians of Boyd County, Ky., met at Ashland, January 16, to consider the question of organization. After adopting the constitution and by-laws framed by the American Medical Association the following officers were elected: President, Dr. Thomas R. Young, Ashland; vice-president, Dr. James W. Kincaid, Catlettsburg, secretary; Dr. Porter C. Layne, Ashland; treasurer, Dr. Alexander T. Henderson, Ashland; censors, Drs. John D. Williams, Catlettsburg, John D. Mutters, Rush, and J. Letton Martin, Ashland. There are 36 physicians in the county, and it is expected that every one will be enrolled in the society.

St. Joseph County (Mich.) Medical Society.

Pursuant to call of Dr. George W. Lowry, Hastings, councilor of the Michigan State Medical Society, fifteen physicians of the county met at Sturgis, Dec. 2, 1902, and organized a county medical society on the lines suggested by the American Medical Association. The annual meeting was held at Three Rivers, January 7, at which 7 new members were enrolled, and the following officers elected: President, Dr. Marden Sabin, Centreville; vice-president, Dr. Frederick W. Robinson, Sturgis; secretary, Dr. John R. Williams, White Pigeon; treasurer, Dr. Edward P. Partlow, Constantine; directors, Drs. Lawrence D. Knowles, Three Rivers, David V. Runyan, Sturgis, and Leal K. Slate, Constantine; committee on public health and laws, Drs. John H. Moe, Sturgis; Charles B. Long, Mendon, and Emory J. Brady, Constantine, and delegate to the Michigan State Medical Society, Dr. Lawrence D. Knowles, Three Rivers.

Kenton-Campbell County (Ky.) Medical Society.

The physicians of Kenton and Campbell counties met at Dayton, January 15, and organized this society, after an address by Dr. J. N. McCormack. The constitution and by-laws prepared by the American Medical Association were adopted, and the following officers elected: President, Dr. Charles B. Schoolfield, Dayton; vice-president, Dr. B. F. Laird, Covington; secretary, Dr. Frederick A. Stine, Newport; treasurer, Dr. Charles S. Helman, Ludlow; censors, Drs. Robert H. Thornton, Newport, William W. Tarvin, Covington, and August Helmbold, Newport. About sixty physicians were in attendance, and much interest and enthusiasm were manifested. As Covington, Newport, Dayton and Bellevue really compose one continuous city, although divided by a county line, it was thought best to organize the profession into one society, although this was a departure from the strict letter of the plan of organization.

Societies.

New York Academy of Medicine.—Dr. Louis J. Ladinski has been elected chairman, and Dr. Charles F. Adams, secretary, of the Section on Obstetrics and Gynecology.

Philadelphia College of Physicians.—This organization held its annual meeting January 7, at which Dr. Horatio C. Wood was elected president; Dr. Arthur V. Meigs, vice-president; Dr. Thomas R. Neilson, secretary, and Dr. Richard R. Harte, treasurer.

North Kentucky Medical Association.—This association convened at Erlanger, Dec. 11, 1902, and elected Dr. Charles W. McCollum, Erlanger, president; Dr. W. A. Scroggin, Dry Ridge, vice-president, and Dr. Myrix J. Crouch, Union, secretary and treasurer.

Rock County (Wis.) Medical Society.—At the annual meeting of this society Dr. William H. Palmer was elected president; Dr. Michael A. Cunningham, vice-president; Dr. George W. Fifield, secretary, and Dr. Frank B. Farnsworth, treasurer, all of Janesville.

Tipton County (Tenn.) Medical Society.—The annual meeting of this society was held in Covington, January 6, at which Dr. L. A. Yarbrough, Covington, was elected president; Dr. O. M. Walker, Munford, vice-president, and Dr. B. Vernon Dickson, Covington, secretary.

Winnipeg (Manitoba) Medical Association.—At the annual meeting of this body, Dec. 5, 1902, Dr. James W. Good was elected president; Dr. J. A. MacArthur, first vice-president; Dr. William J. Neilson, M.P.P., second vice-president, and Dr. Gordon Bell, secretary-treasurer.

Mahaska County (Iowa) Medical Society.—This society has been reorganized at Oskaloosa with the following officers: Dr. Joseph T. Coveny, president; Dr. Joseph C. Barringer, vice-president; Dr. Herman C. Homer, secretary, and Dr. Samuel W. Clark, treasurer, all of Oskaloosa.

Union County (Ky.) Medical Society.—At the annual meeting of this society in Morganfield, Dec. 1, 1902, Dr. William A. Richards, Morganfield, was elected president; Dr. T. E. Newman, Waverly, vice-president, and Dr. Roland H. Rhea, Jr., Morganfield, secretary and treasurer.

Wapello County (Iowa) Medical Society.—At the annual meeting of this society, held at Ottumwa, January 6, the following officers, all of Ottumwa, were elected: President, Dr. William B. La Force; vice-president, Dr. Charles R. Russell, and secretary and treasurer, Dr. Emma S. Powell.

O. A. Horr Medical Association.—At the annual meeting of this association, held in Lewiston, Me., Dec. 15, 1902, Dr. Wallace E. Webber, Lewiston, was elected president; Dr. E. A. McCollister, Lewiston, vice-president; Dr. Clarence C. Peaslee, Auburn, secretary, and Dr. John Sturgis, Auburn, treasurer.

South Texas Medical Association.—At the annual meeting of this body at Houston, Dec. 17, 1902, the following officers were elected: President, Dr. Hugh W. Crouse, Victoria; vice-presidents, Drs. John T. Moore, Galveston, and Sofie Herzog, Brazoria, and secretary and treasurer, Dr. Fred. B. Shields, Victoria.

Orange Mountain (N. J.) Medical Society.—The annual meeting of this society was held in Orange, January 9. Dr. Herman P. Gerbert, Orange, was elected president; Dr. Thomas S. P. Fitch, East Orange, vice-president; Dr. Richard D. Freeman, South Orange, secretary, and Dr. J. Minor Maghee, Orange, treasurer.

Huntingdon County (Pa.) Medical Society.—At the annual meeting of this society, held January 13, Dr. Bruce P. Steele, McVeytown (Mifflin County) was elected president; Dr. John M. Beck, Alexandria, vice-president; Dr. Howard C. Frontz, Huntingdon, secretary, and Dr. George C. Harman, Huntingdon, treasurer.

Medical Association of Porto Rico.—At the annual meeting of this association at San Juan, Dec. 14, 1902, the following officers were elected for a term of two years: Dr. Manuel Quevedo Baez, chairman; Dr. Jose N. Carbonell, treasurer, and Dr. Rafael Velez y Lopez, secretary, all of San Juan. The meeting was largely attended by physicians from almost every town in the island.

Portland (Me.) Medical Club.—The quadri-centennial of this club was celebrated Dec. 4, 1902. After a banquet and addresses by the retiring president, Dr. Arthur S. Gilson, on "The Advancement Made in Medical Science During the Past Twenty-five Years," and Dr. Frank W. Searle, the following officers were elected: President, Dr. Neil W. R. Straw; vice-presidents, Drs. Barzillai B. Foster and James K. Rogers, and secretary and treasurer, Dr. Herbert J. Patterson.

Philadelphia County Medical Society.—At a meeting of this society, held January 21, Dr. Francis M. Perkins was elected president; Dr. J. Cardeen Cooper, first vice-president; Dr. William S. Higbee, second vice-president; Dr. William S. Wray, secretary; Dr. Ross H. Skillern, assistant secretary; Dr. Collier L. Bower, treasurer, and Dr. William M. Welch, censor. Among proposed amendments to the by-laws, one making graduates of homeopathy eligible to membership was overwhelmingly rejected by the society.

St. Louis County (Minn.) Medical Society.—At the meeting of this society, held in Duluth, Dec. 11, 1902, the physicians of Lake, Cook, Carlton and Itasca counties were declared eligible to membership, the constitution having been so changed as to permit their admission. At the annual meeting and

banquet, January 8, Dr. John M. Robinson was elected president; Dr. Joseph D. Titcomb, first vice-president; Dr. Daniel D. Murray, second vice-president; Dr. Frederic J. Patton, secretary, and Dr. Clarence E. Lum, treasurer, all of Duluth.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Regular Meeting, held Dec. 10, 1902.

The President, Dr. C. S. Fenton, in the Chair.

Coal Tar Products in Neuralgia, Etc.

DR. WHARTON SINKLER called attention to the fact that when first introduced the coal tar derivatives were used solely as antipyretics, experiments with these preparations having shown their power of reducing temperature. It was observed, however, that they relieved the headaches and neuralgic pains accompanying the fevers for which they were administered, and they, therefore, soon attracted attention as analgesics.

The preparations first introduced, namely, antipyrin, acetanilid and phenacetin have remained the most popular among the various coal tar products, although a great many others have been put on the market. The writer gave a list of the painful affections in which these preparations were most efficacious. Among these are migraine, neuralgias of various kinds, the pains of locomotor ataxia and ovarian and visceral pains. He called attention to the fact that these preparations are of little value in pains of organic origin. He also stated that although these preparations have been greatly abused, the legitimate use of them has increased and that the confidence of the profession in them is greater at the present day than it even was several years ago.

Coal Tar Products in Central Nervous Affections.

DR. F. SAVARY PEARCE read a paper, pointing out the use and abuse of these drugs. The practical side of the indications for this class of remedies was presented from an experience of ten years in their use, together with data gathered from many physicians in different parts of the United States.

The functional central nervous diseases, hysteria and neurasthenia, were dwelt on. The danger in the continued use of antipyrin and similar remedies for pain in these affections lies in the fact that a drug habit may be established, as in one case detailed, wherein a young man had taken as high as 150 grains of antipyrin "for pain in the head," and he had employed 15 different physicians in the effort at cure, which was finally done by absolutely withholding the drug, assisted by suggestion. Trional was considered the best of the hypnotics, in 15-grain doses.

In organic central nervous affections the coal tar products should be used in brain tumor or as analgesics in meningitis, but guardedly so, since there is danger of collapse due to further depression of already inhibited action of the cardiac and respiratory centers in the medulla. It is well to guard the analgesic by incorporating into the tablet from 2 to 5 grains of caffein citrate. Phenacetin is the safest drug to employ in any case with cardiac weakness. In tabes dorsalis, the coal tar products have their most helpful use. Salol is valuable in autointoxications.

Coal Tar Products in Diseases of the Skin.

DR. MILTON B. HARTZELL presented this subject. Their use he considered a small one, the claims of the manufacturers not being justified. Their properties suggest a local effect inimical to the lower forms of life and an analgesic effect.

Coal tar itself is useful in chronic eczema; some dermatologists think it most effective of the coal tar products. Carbolic acid is the one most generally useful. It is not especially valuable for its parasitic effect, but more effective where itching is a prominent symptom. As an antipruritic it has no contraindications. The cresols are closely akin, and creolin or tricresol may be substituted for carbolic acid, but they are not so good. Resorcin, properly belonging to the coal tar products, is excellent in a lotion in seborrheic eczema; in acne it has no superior. A 40 to 50 per cent. preparation applied to superficial epithelioma will sometimes cause their cicatrization. It is valuable in chronic leg ulcers. Beta-naphthol is a parasitic remedy, a substitute for other drugs in scabies. It rarely causes irritation. The use of orthoform is liable to be followed by dermatitis, may be even gangrene of the skin. Acetanilid, with bland powders, used locally, may have a decided toxic effect and is not in general use. The internal use of this class of drugs in skin diseases is narrow in its limitations. Where itching exists antipyrin given twice daily may be of service. Phenacetin and acetanilid are sometimes excellent for the itching of urticaria. The coal tar products form a small but important addition to dermatotherapy.

DISCUSSION.

DR. J. P. CROZER GRIFFITH, in the discussion, claimed that there had been too great a rebound from the use of coal tar products in fevers. He held that they should not be used often, but he finds cases in which they must be used to get results, and to abandon them is a mistake. Often the nervous symptoms in children accompanying fever are well influenced by these drugs.

Electrolysis for Aneurism.

The last subject presented was by DR. H. A. HARE, "Another Case of Aortic Aneurism Treated by Electrolysis." This was the fourth reported by Dr. Hare. Altogether he has performed the operation eight times. The patient had been struck in the upper part of the chest with the pommel of his saddle. Dull, boring, aching chest pain developed within a few months. Cough and expectoration of blood ensued. An egg-shaped tumor developed in the superior portion and median line of the chest, and the left chest wall bulged prominently. There was a general heaving impulse with a bruit and the classical symptoms of a large aneurism.

Operation was performed July 10, 1901. A hollow needle was inserted into the tumor, through which 9 feet of gold wire were passed. An electric current, beginning with 5 milliamperes, was then sent through the wire. The current was gradually increased to 55 milliamperes, when pain was complained of, and the current was gradually reduced to 10 milliamperes. At the end of one hour the needle was withdrawn, the wire severed and the wound sealed with compound tincture of benzoin. Patient left the hospital several weeks after operation very much improved, and continued in fair health for two and a half months, when the aneurismal swelling suddenly increased greatly in size, in an area not having been wired.

Returning to the hospital, the portion wired six months previous was firm and hard. To the right of this area the rapidly-enlarging growth was wired in a manner identical with the first operation. The skin about the needle was so poorly nourished that it failed to heal over the opening, and slight oozing occurred, and finally a superficial slough formed. Repeated hemorrhages, usually in clots, some of them 3 or 4 inches long, took place from this external wound, and, as a result of a profuse one, the patient finally died.

The conclusions reached by Dr. Hare from his experience are as follows: Electrolysis in properly selected cases of aneurism is a valuable measure and prolongs life. The operation is neither dangerous nor painful.

The failure of permanent cure does not depend so much on the failure of the operation to limit the disease locally as to the fact that the adjacent parts of the blood vessel are weak and, when the most bulging area is solidified by the clot, these lateral areas may later on give way. Even in these cases life is prolonged by the closing of the weakest area and it is not to be forgotten that in at least one case (Stewart's) life was prolonged three years, death taking place from an alcoholic debauch.

DISCUSSION.

DR. D. D. STEWART stated that he had operated on many cases since 1889. He does not favor a current of more than 20 milliamperes, continued for three-quarters of an hour. If the aneurism is a large one he introduces wire in several places—has done so with good success. He uses gold wire. He considers it important that the wire have spring so that it will form a coil.

In closing, Dr. Hare stated that the tendency is to use less wire than formerly, 3 or 4 feet now being considered sufficient. He would use not over 30 milliamperes. He agrees with others in believing a permanent cure practically impossible. Occasionally laminated clots form spontaneously in aneurismal

sacs. The case was cited of a woman living in Philadelphia who has had for years a healed aneurismal sac as big as the fist protruding from the chest. Two points of warning in doing the operation were made: to see that the insulation is good or the skin will be injured, and to beware of too strong a current or the patient's back may be burned by the clay electrode.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Toxemia in Pregnancy.

According to *Prog. Medicine* pregnant women should be taught the necessity of careful attention during their pregnant state, and to this end the study, by the physician, of toxemia in its various phases should be carried out. One of the most important organs to the pregnant woman and the fetus is the liver. By regulating the liver and keeping it in a condition to perform its best work the physician can prevent much discomfort and perhaps puerperal convulsions. The liver, according to the author, must not be trusted to bear the strains of pregnancy and parturition without assistance. The patient, in addition to proper attention to diet and hygiene, should take a pill similar to the following once a day:

℞.	Eunonymin	
	Hydrarg. chloridi mit.	
	Pulv. ipecac., āā .....gr. 1/8	0075
	Aloin .....gr. 1/12	005
	Podophyllin .....gr. 1/20	003

M. Ft. cop. No. i. Sig.: One such pill at bedtime.

The foregoing pill should prove sufficient to cause one natural bowel movement daily. Different cases will require different amounts varying from one to three pills a day. This pill may be given for two weeks and omitted for two weeks.

Hyperchlorhydria.

Stockton, in "Text-book of Applied Therapeutics," states that when hydrochloric acid is present in the stomach beyond the normal limit, after a test meal, hyperchlorhydria exists. This condition coexists with motor disturbances generally. The treatment should be directed toward the cause and relief of the subjective symptoms. In order to relieve the suffering and distress of the patient the diet must be properly adjusted. Generally a milk diet affords comfort taken hot, but not boiled, with a little lime water, or peptogenic powder may be added.

About six ounces should be taken every two hours. When the stomach has had a short rest as the result of this diet and the irritability has subsided, a small amount of well-cooked starchy food may be added two or three times a day. Zwieback supplies this need most satisfactorily, as mastication becomes necessary and it is finely divided before entering the stomach. An egg may be added to the diet after a few days, and as these articles are added, the amount of milk should be decreased. Last of all meat may be added. This is best given at the evening meal, and milk should be excluded at that meal.

Within a week three meals of solid food may be permitted: The breakfast should consist of soft-boiled egg, a dry, warmed-over roll, and a bit of broiled bacon. In the middle of the forenoon a glass of hot milk should be taken; at the noon meal a large amount of Zwieback and a glass of hot milk; in the afternoon another glass of hot milk, and in the evening a plain, substantial dinner, which consists of the following: fish, roast beef or mutton, with fresh vegetables, but no dessert. Weak tea or coffee may be given at breakfast. All highly-flavored and seasoned soups should be omitted.

In addition to diet a great deal of good can be done with medicinal remedies. The condition of the liver and intestine must be inquired into when such marked disturbances of the stomach are present. In order to lessen the acidity and to allay the irritability of the gastric mucous membrane the following is recommended by the author:

℞.	Cerii oxalatis .....gr. xv	1
	Bismuthi subcarb. .....gr. xxx	2
	Magnesiæ (calcined) .....ʒi	4

M. Sig.: One teaspoonful stirred in an ounce of water and taken at the first intimation of gastric distress.

This may be given as often as necessary through the day. The dose of magnesia if repeated too often will produce its laxative effect on the bowels, which is desirable within certain limits, but should not cause too frequent movement. In such cases the following may be substituted:

℞.	Cerii oxalatis	
	Bismuthi subcarb., āā .....gr. xv	1
	Bismuthi subgal.	
	Cretæ prep., āā .....ʒss	2
	Carbonis ligni pulv. .....ʒi	4

M. Sig.: One teaspoonful stirred in water and then taken as often as necessary.

The two foregoing powders may be administered alternately in order to keep the bowels in the proper condition.

Chronic Constipation.

The medicinal treatment of chronic constipation, according to the *Encyc. of Med. and Surg.*, should consist principally of four drugs: Nux vomica or its alkaloid strychnia, aloes, jalap and cascara sagrada. The use of ergot and belladonna, according to the author, should be discontinued. And in case of evidence of atrophy of the glandular structure of the intestinal wall, this action may be increased by the administration of sodium phosphate and ammonium chlorid. Belladonna may be of service in those cases due to hyperacidity, but it should not be continued. For such purposes the following combination should be used:

℞.	Calcined magnesiæ .....ʒss	15	
	Pulv. rhei .....ʒiiss	10	
	Sodii carb. .....ʒi	4	
	Ext. belladonnæ		
	Ext. nucis vom., āā .....gr. ii		12

M. Sig.: One half a teaspoonful three times a day, half an hour after meals. And when atonic constipation is associated with absence of hydrochloric acid or subacidity the following:

℞.	Acidi hydrochlor. dil. .....ʒss	15	
	Strych. sulph. .....gr. 1/3		02
	Tinct. rhei q. s. ad .....ʒvi	180	

M. Sig.: One tablespoonful in a wineglassful of water one hour after meals through a glass tube.

When acute attacks of indigestion accompany the constipation, calomel should be given in half-grain doses repeated every two hours or castor oil may be substituted.

In stout individuals with inclination toward passive congestion in the intestinal canal, and hemorrhoids, the salines, such as sodium and magnesium sulphate, sodium and potassium tartrate and sodium phosphate are of service.

Nothnagel recommends the following:

℞.	Podophyllin .....gr. ivss		27
	Ext. aloes		
	Ext. rhei, āā .....gr. xlv	3	
	Ext. taraxaci .....gr. xx	1	30

M. Ft. pil. No. xl. Sig.: One pill at bedtime.

When flatulency is present the following pill is advised:

℞.	Ext. colocynth. co .....gr. 1/3	02
	Res. terebenthinæ .....gr. i	06
	Pulv. aloes soc. .....gr. iss	09
	Ext. nucis vom. .....gr. 1/4	015
	Ext. hyoscyami .....gr. i	06

M. Ft. pil. No. i. Sig.: One such at bedtime.

Strümpell recommends the following containing manna:

℞.	Mannæ		
	Sacchari, āā .....ʒss	2	
	Aq. fœniculi .....ʒss	2	
	Pulv. iris rad. .....gr. ii		12
	Olei amygdalæ dulcis .....gtt. xv	1	

M. Sig.: One heaping teaspoonful at bedtime for the bowels. Other preparations such as senna and the mineral waters may be substituted.

In gastrointestinal atony following fevers and in the stage of convalescence of summer complaints the following is recommended:

℞. Pulv. calumbæ
Pulv. zinziberis, āā ..... ʒss 15
Pulv. senna fol. ..... ʒi 4
Aquæ bullientis ..... Oi 500

M. Fiat infusum. Sig.: Take one wineglassful three times a day.

Psoriasis.

Chauneil of Paris, in the *Med. Press*, recommends that the animal food be reduced and that strong cheese, alcohol, and fermented liquids be omitted from the dietary. Proper amount of exercise should be taken to keep the skin in order.

The internal medication should consist of potassium iodid in large doses, commencing with 60 grains daily well diluted and increasing to one hundred and eighty grains. The treatment should not be continued longer than one month. He considers thyroid gland as a dangerous preparation in this trouble. The external treatment is of importance. The scales must be removed by a warm alkaline bath, the patient rubbing himself with a brush and soft soap.

Locally the following applications are to be employed:

℞. Olei cadini ..... ʒii 8
Saponis mollis q. s.
Glycerol amyli ..... ʒiii 90
Essent. caryophylli q. s.

M. Sig.: Apply locally.

The foregoing may be gradually increased in strength and applied according to the following:

Olei cadini ..... ʒiss 45
Saponis mollis q. s.
Glycerol amyli ..... ʒiss 45
Essent. caryophylli q. s.

M. Sig.: Apply locally.

Pyrogallic acid should be used on small surfaces only, on account of the danger of intoxication. The same may be said of chrysophanic acid. Mercurial preparations, naphthol, salicylic acid are successfully employed as in the following combination:

℞. Acidi pyrogallici
Ichthyol
Naphthol
Acidi salicylici, āā ..... ʒss 2
Vaselini ..... ʒiii 90

M. Sig.: Apply locally.

Hebra recommended the following, containing oil of cade, in the treatment of eczema or psoriasis:

℞. Sulphuris sublim.
Olei cadini, āā ..... ʒss 15
Saponis viridis
Adipis, āā ..... ʒi 30
Cretæ prep. ..... ʒiiss 10

M. Fiat unguentum. Sig.: Apply locally. The following is recommended by Shoemaker, which may be varied in strength to suit the individual case:

℞. Olei cadini ..... ʒvii 210
Tinct. quillajæ ..... ʒv 20
Glycerol amyli ..... ʒviii 240

M. Ft. unguentum. Sig.: For local application.

Arsenic in Chorea.

F. M. Pope, in an abstract in *Month. Encyc. of Pract. Med.*, gives the following principles for the administration of arsenic in the treatment of chorea: See that the tongue is clear before commencing treatment, and, if not, give a mild mercurial purge and a stomachic mixture for forty-eight hours. Put the patient on a bland and easily-digested diet. Give the drug in a much-diluted form and in the same dilution throughout. Do not discontinue on the first attack of vomiting, which may be due to accidental causes. Increase the dose daily. Keep the patient in bed throughout the treatment. If vomiting persists, discontinue the drug for twenty-four hours and then give the same dose as the last. Examine the patient very carefully every day for any sign of toxic action. What must be aimed at, according to the author, is a form of shock action on the nerve tissues, and this may explain the failure of long-continued treatment with small doses. A preparation containing iron in some form should be prescribed for some time after discontinuing the arsenic.

Medicolegal.

Missouri Supreme Court on Magnetic Healing, So-Called.—The Supreme Court of Missouri, Division No. 1, has reversed a judgment for libel obtained by Weltmer and others vs. Bishop on account of the publication in a newspaper of an article calling the former "miserable charlatans," and which was libelous if their business was legitimate, and if the statements were false, and if the article referred to them. The evidence on the trial showed, among other things, that the parties suing, who were men without the pretense of scientific learning, and who possessed only to a limited degree even the rudiments of education, were engaged in a business at Nevada, Mo., which they called "Magnetic Healing." They employed for chief assistants three men who were also unlearned in any science, and of little common education, and in addition to these a large number of female typewriters. They advertised very extensively in the chief cities of the United States and in foreign countries. In their advertisements they professed to possess miraculous power to heal all diseases to which beings were liable, without medicine and without surgery; that to them had been committed the startling revelation whereby all ailments are dispersed as if by magic; that they had cured patients thousands of miles away, and could cure thousands in an instant; that they exerted the same powers that Jesus Christ exerted to cure diseases 1900 years ago. By far the greater number of their patients were at a distance, and the only communication with them was by letter. These they proposed to cure, no matter what the disease, and though thousands of miles away, by a mysterious influence of the mind of the healer over that of the patient. The chief direction in the letter to the distant patient was that at a certain hour in the day he should dismiss all disturbing thoughts, and bring his mind into a passive condition to receive the influence from the mind of the healer, who at that same hour in Nevada would bring his mind to exert the mysterious influence desired. Their patients of this kind numbered many thousands, and they were treated by the typewriters, who alone read the letters coming from the absent patients, and answered them. The answer to each was, in the main, a copy of a circular letter prepared by the parties suing, and furnished the typewriters for that purpose. One of these parties, who was the originator of the scheme, and the chief director of the business, explained that the process of this absent treatment was that, at the hour designated in the letter in which the patient was to make his mind passive to receive the healing influence, he (the healer) would bring the powers of his own mind to bear on that of the distant patient, and the beneficial result would follow. In this way many hundreds of men, women, and children in different parts of the world were treated at the same instant. When his attention was called to the fact that at a stated hour in Nevada, when the healer was exercising his mind to transmit its influence to the expectant patients in different parts of the world, that time would not correspond with the hour in distant and different localities, he gave no clear explanation of the point. It was also shown that, when he left the business and went to Colorado for a summer vacation, this absent treatment went on as efficiently through the instrumentality of the typewriters as when the healer was present. One of the witnesses for the parties suing testified that she was a married woman, living near Chicago; that she had been afflicted with cancer of the breast, and other troubles peculiar to women; that she took this absent treatment from Professor Weltmer from May 1 to July 1, 1899, and was entirely cured. This was one of the cures effected by this absent treatment, when the healer was himself absent, and no one but the typewriter in Nevada to transmit the healing influence. The testimony as to the method of treatment of those who came in person to Nevada showed that it was, in the

main, an abuse of their credulity, and in some instances consisted only of disgusting suggestion. Quite a number of witnesses testified that they had taken these treatments, and were cured or benefited; and the trial judge submitted to the jury to say if the business was legitimate, and in weighing that question they were to consider the results as disclosed by the evidence, and, on the whole, if the results had been beneficial, the business was not to be adjudged a fraud. But the Supreme Court says that courts are not such slaves to the forms of procedure as to surrender their own intelligence to an array of witnesses testifying to an impossibility. They are not required to give credence to a statement that would falsify well-known laws of nature, though a cloud of witnesses swear to it. We, the court continues, recognize that in the realm of science much is yet undiscovered, and especially is this so in the science relating to diseases of the human system and their treatment. Different schools of medicine contend with each other on vital questions, and, as long as the contest continues with reason, it can not be said that the right of either, as above the other, has been demonstrated. But if either school would convince us that it is right, or even that it is entitled to be recognized as a contestant, it must appeal to our intelligence, and discuss the subject on the basis of natural laws. If it can not be discussed on that basis, there is nothing to discuss. If a man come into court claiming to possess supernatural powers, and bring with him witnesses who swear he has done for them that which we know is impossible, we are not required to believe such evidence. Here was a woman, who perhaps believed what she said, who testified that by a mental process of one of the parties suing, transmitted to her through a letter several hundred miles away, she was entirely cured of a cancer of the breast. The fact that the party who was supposed to have transmitted the influence from Nevada was not there at the time adds to the absurdity of the statement. And the testimony of other witnesses, perhaps also sincere, to the effect that they were cured of otherwise incurable diseases by such mysterious process, can have absolutely no lodgment in our intelligence. Under the instruction above referred to, the jury were directed to heed such evidence, and if, on the whole, it showed that good had resulted to the community from the practices of the parties suing, the jury were to find that the business was a lawful one. It was an instruction, in effect, directing the jury to surrender their own intelligence to the preponderance of statements of witnesses, irrational though such statements were. Under the conceded facts, there was no evidence to justify the submission of the case to the jury, and the peremptory instruction for a verdict for the party sued should have been given. If there was anything in the business of the parties suing, which they call "Magnetic Healing," that entitled it to the protection of the law, and which was not perceptible to the uninstructed, the burden was on them to show the rationale of it; and, failing to do so, the court should close its doors against them. The law of libel is not designed to shield one in the practice of an illegal business. The business of the parties suing, as shown by their own evidence, is of such a character as that it is not entitled to protection under the law of libel. On a motion for rehearing, the court's attention was called to the recent decision of the Supreme Court of the United States in the case of the School of Magnetic Healing vs. McAnnulty, reported on pages 122 and 123 of THE JOURNAL of Jan. 10, 1903. But the Supreme Court of Missouri points out that that case was very different in its facts from this one. In that case it was held that upon the statement of facts admitted by demurrer to be true the business of the complainants was not within the class forbidden to be conducted by use of the mails, but it was not meant to preclude it being shown on the trial, if it could be, that the business, as in fact conducted, amounted to a violation of the statutes. The decision in this case is not based on a demurrer admitting that the business of the parties suing is a system of healing conducted on practical and scientific principles, but it is based on the character of the business as shown by the evidence at the trial. Motion for rehearing overruled. All concur.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

New York Medical Journal.

January 24.

1 The New York Academy of Medicine—Valedictory Address of the Retiring President. Robert F. Weir.
2 *A Study of the Deaths Occurring in New York City on the Opposite Sides of Twenty Streets During the Year 1895. Alfred E. Thayer.
3 Cases Illustrating Some of the Newer Points in the Surgery of the Day. Robert T. Morris.
4 Chronic Gastritis and Gastric Motor Insufficiency in Children. F. L. Wachenheim.
5 *The Treatment of Non-paralytic Strabismus, Including a New Operative Procedure. J. H. Woodward.

2. **Local Mortality.**—Thayer has studied the deaths occurring in New York City on the opposite sides of certain streets from 14th to 33d, selecting them mainly because of their larger proportion of individual residences and their east and west direction. He found that the mortality on the north side was decidedly higher than than on the south side. The excess of deaths was due chiefly to three diseases, pneumonia, phthisis and nephritis. The first two are specially fatal during cold weather, when the proper ventilation of living and sleeping rooms is most neglected. The third is also affected by lack of air and sunlight, and indirectly by mental depression due to darkness and poor air. On the south side of the street the greater freedom from these causes of death is chiefly due to the advantages of sunlight and ventilation enjoyed from the habit of New Yorkers of living in the rear part of the house, the south side residents thus having the better air and sunlight. Zymotic diseases appear to be independent of these conditions, and may occur in excess on the south side of the street, and the total mortality may be greater on that side. The rear houses are situated less favorably than the single houses on the lot, depriving the other house of its proper light and air also. The width of any street and the distance across yards, measured from the back of one house to the back of another, should be as nearly as possible the same; the latter should never be less than the former; and the height of dwelling houses should bear some relation to these measurements, so that one house will not deprive the other of its light and air. In the case of contagious disease in any family, the importance of keeping the other children from school is closely related to the question of infant mortality below the age of five years. In conclusion he urges people to keep their windows open and their shades up as much as possible, and this especially for dwellings on the north side of the street and during the colder months of the year when ventilation is most neglected.

5. **Stabismus.**—Woodward discusses the treatment of this condition and remarks that in his operations for strabismus he has confined himself in probably 90 per cent. to the deviating eye, and has advanced the opposing muscle in a great majority of cases, and in most of them cut overacting muscles. The result was an improvement on the practice of operating on both eyes, but yet it was not entirely satisfactory. In a smaller number of cases he has advanced the antagonist, omitting to divide the overacting muscle. Some of the results were gratifying. The chief difficulty encountered was that of maintaining the position of the advanced muscle until healing could take place. He devised a special needle that would neither tear nor cut the episcleral tissue, and was thus enabled to secure a hold that did not give way readily. Several methods of advancement were tried. Still, the pull of the overacting muscle on the sutures was always too great for security. Therefore, he tried to obviate that difficulty by stretching the overacting muscle, hoping to paralyze or weaken it temporarily. A strabismus hook was passed beneath the tendon and all the traction that seemed safe was exerted when the antagonist was advanced. He has tried this sufficiently to be convinced that stretching the tissues in this way will prove a very useful preliminary to advancement of the antagonist, and will later aid our endeavors to eliminate tenotomy from the treatment of strabismus.

American Medicine, Philadelphia.

January 24.

6 *Influence of Nephrectomy Upon Absorption. S. J. Meltzer and W. Salant.
7 Secondary Carcinoma of the Liver, with Report of a Case in Which the Liver Weighed 15,110 gms. (33½ lbs.). Henry A. Christian.
8 *Through-and-through Intestinal Suture, with Report of Additional Cases. F. Gregory Connell.
9 *Transmissibility of Plague. W. J. Calvert.
10 Karyokinesis in Malignant Tumors. Frederick G. Canney.
11 X-Rays in Surgical Diagnosis. Arthur T. McCormack.
12 Widener Memorial Industrial Training School for Crippled Children. DeForest Willard.

6. **Influence of Nephrectomy on Absorption.**—Meltzer and Salant have experimented on nephrectomized rabbits, introducing salt solution through a fine opening into the peritoneal cavity and removing it very carefully again after varying intervals. A normal animal was used as a control test in each case. The first series of experiments was made with a 0.8 per cent. solution of sodium chlorid, presumably approximately isotonic with the normal serum of the animal. The result was a surprise. The nephrectomized animal usually absorbed not less than normal, but distinctly better. Nephrectomy seemed to rather favor absorption. This directed their attention to a factor which had been hitherto neglected in nephrectomy, the increased osmotic pressure of the blood, which should explain the phenomenon. In the next experiments they carried out several series with solutions of 1, 1.2, 1.5 and 2 per cent. sodium chlorid concentrations and found a still greater absorption in nephrectomized animals. With the solution of 1.2 per cent. of sodium chlorid the absorption was at least twenty-four times as good as that which took place in the normal animals. Their experiments show that after nephrectomy absorption is considerably improved. They clear up the mystery why no edema was observed after nephrectomy in animals or in pathologic conditions of acute anuria in human beings lasting sometimes five to six days. The first effect of complete anuria is not in the increase of the normal transudation but an increase of the power of absorption of the blood.

8.—See abstract in THE JOURNAL, xxxix, p. 1,132.

9. **Transmissibility of Plague.**—Calvert has experimented on the viability of plague germs and observed the transmission, which he thinks may take place through fleas and other insects as well as by inoculation. He reports a case of infection through the genitals and has experimented unsuccessfully on monkeys to produce plague by infusion through the mouth. In conclusion, he says that the plague organism is long-lived; is carried by raw materials, insects, etc.; gains access to the system through superficial abrasions, wounds and the pulmonary tract, and that a relatively small number of organisms may cause the disease.

Medical News, New York.

January 24.

13 *Cases Illustrating the Therapeutic Uses of the Roentgen Rays. Samuel B. Childs.
14 *Subphrenic Abcess as a Complication of Appendicitis. Henry A. Christian.
15 *A Consideration of the Scientific Application of Mechanical Vibratory Stimulation in the Treatment of Disease. Maurice F. Pilgrim.
16 *Tonsillitis Classified as an Infectious Disease. Walter S. Mills.
17 *The Medical Inspection of Schools: A Problem in Preventive Medicine. (Concluded.) Lewis S. Somers.

13. **Roentgen Rays.**—Childs illustrates a variety of cases and outlines the promise of this agent.

14. **Subphrenic Abscess.**—Christian and Lehr finds out of 86 cases of death due directly or indirectly to appendicitis, that 7 or 8.13 per cent. showed involvement of the subphrenic region in the purulent process. While not all these were primary abscesses, they review them as they think they will be of use in illustrating the manner of formation and the comparative findings of these conditions. They discuss the literature of subphrenic abscess, finding it not a very common disease and report several cases in detail, with autopsy and microscopic examinations. Subphrenic abscess, they say, secondary to appendicitis, may occur in one of four ways: 1. As a localized abscess or part of a general purulent peritonitis; 2, by extension of the disease process from appendix to subphrenic region by the intraperitoneal route; 3, by extension of this process by the extraperitoneal route either by the lymphatics or by infiltration through the retroperitoneal tissue; 4, by way of the blood current as part of a general embolic septic process, or as a sequence of liver abscesses which are of embolic origin by way of the portal vein. The greater number occurred by direct extension intra- or extra-peritoneally. The right side seemed to be most involved. The pleura may become involved from the appendix by extension from a pneumonic focus or infarct, or by extension from the abdominal cavity by way of the lymphatics or by erosion of the diaphragm. This latter form constitutes the appendicular pleurisy of the French writers. It is very often associated with subphrenic abscess as in four of the seven cases reported, and is almost always right-sided.

15. **Mechanical Vibratory Stimulation.**—This method is applied for the stimulation of nerve and nerve centers, stimulating and equalizing the blood currents, and for the stimulation of the secretions and excretions, and the lymphatics. Pilgrim argues for its utility, claiming especially good results from this method in ocular affections due to anemia or hyperemia, in goiter, exophthalmic and other forms, functional disorders of the digestive function and varicose conditions, and looks for good effects in malignant growths. He has seen marked benefit from it in the early stages of tuberculosis, and cases of subacute rheumatism thus far treated have been benefited, and most of them cured. The same is true of neuralgia, myalgia, etc. In conclusion he describes a special instrument, which he thinks is best adapted for this purpose.

16. **Tonsillitis.**—The infectiousness of tonsillitis is argued by Mills. The paper is simply to call attention to the contagious nature of the disease and give it the proper place in classification.

17. **School Inspection.**—Somers' article is largely a review of what has been done in certain cities, Cleveland, Chicago, Philadelphia, and others, and the advantages that have been obtained from proper medical inspection in the prevention of epidemics, rectification of evils existing and aiding the defective and other children who are laboring under damaging conditions and surroundings.

Medical Record, New York.

January 24.

18 *A Contribution to the Pathogenesis of the Uremic State; The Probability of Its Physico-electric Substratum. Heinrich Stern.
19 *Reasons for Believing that the Only Way in Nature for Yellow Fever to be Contracted by Man Is from the Mosquito. John W. Ross.
20 *Ankylosis of the Crico-Arytenoid Articulation, Due to Acute Inflammatory Causes. D. Bryson Delavan.
21 *The Relations and Treatment of Follicular Conjunctivitis and Trachoma. Ellice M. Alger.

18. **Uremic State.**—Stern holds it is made evident that the uremic state arises on the foundation of diminished electrical conductivity of the serum, or at least, that this is the potent contributing factor. A recapitulation of his article and remarks is given in the following:

1. None of the retained known products of metabolism are in themselves toxic to any degree.
2. In uremia there is a higher molecular concentration of the blood serum, which is due to the accumulation of normal products of catabolism.
3. Hyperosmosis of uremic serum is evidenced by determination of its freezing point. The freezing points of normal blood sera lie between -0.55 and -0.57° C., those of uremic blood sera are depressed to between -0.61 and -0.67° C.
4. The point of attack and the origin of the uremic convulsive phenomena is situated in the psychomotor centers of the cortex cerebri; the hyperosmotic condition of the blood and liquids in the brain may occasionally furnish the stimulus to the uremic attack, but there is no analogy between the degree of molecular concentration and the intensity of the uremic process.
5. In uremic serum there occurs invariably an abnormally large amount of retained nitrogen. There is no parallelism between the degree of freezing point depression and the amount of retained nitrogen.
6. Non-electrolytes do not only interfere with complete dissociation, that is ionization, but also retard ionic movement. Their presence, therefore, lessens the electrical conductivity of the watery liquid in which the electrolytes are contained.
7. In uremia the large amounts of retained albuminous derivatives exhibit most potent non-electrolytic qualities.
8. The ions as independent molecules participate in augmenting osmotic tension and in depressing the freezing point; the excessive high osmotic pressure of uremic serum is not due to its ions, but to its contents of neutral molecules.
9. Determination of the freezing point of uremic serum discloses the fact of its high molecular concentration, but not the degree of its electrical conductivity.
10. Dissociation of electrolyte molecules into ions occurs in the ratio of the dilution of the watery solution. The more concentrated the serum the smaller its conductive qualities.

11. The conductivity of the blood serum of healthy individuals varies between 106.18 and 119.12. The lowest conductivity of human blood yet found, 98.29, occurred in a case of uremia.
12. Intravenous injection of water for therapeutic purposes dilutes uremic serum in such a manner that it may exhibit greater conductive properties.
13. Normal conductivity of the serum is more readily and frequently re-established if the uremic state has developed on the basis of parenchymatous nephritis than if it occurs as the consequence of interstitial nephritis. A most potent reason for this is the fact of the existence of smaller amounts of retained nitrogen in the parenchymatous than in the interstitial type of the affection.
14. In most instances of uremia, especially in those characterized by deep and prolonged coma, the body temperature is considerably lowered. This fact again contributes toward reduction of serum conductivity. Elevation of temperature, on the other hand, as long as within well-defined limits, tends to increase the conductivity.

19. **Yellow Fever.**—Ross reviews the facts in regard to the transmission of yellow fever, restating those given by Reed, Carroll, Agramonte and others and remarking that while the attack made on the mosquito was thorough in Havana, other insect pests like bedbugs, fleas, etc., which are thought by some medical men to have some agency in the spread of the disease were not attacked at all, no attention being paid to such by the sanitary department. Nevertheless yellow fever was conquered. Yellow fever, he holds, is communicated through the mosquito, and through it alone.

20. **Crico-Arytenoid Ankylosis.**—This condition is not exceedingly rare, according to Delavan, and may be found in otherwise healthy subjects, a fact which he thinks should be more generally known. The majority of cases have been supposed to be due to perichondritis resulting from syphilis, gouty or rheumatoid arthritis, cancer and tuberculosis, but exanthemata, diphtheria and various traumatisms may give rise to them. Any acute inflammation of the posterior region of the larynx attended with infiltration may cause a temporary fixation of the crico-arytenoid joint. He reports cases illustrating the condition and discusses its diagnosis. In some cases it may be difficult to diagnose between this disorder and paralysis of the recurrent nerve, and only a careful process of exclusion may suffice to make it definite. Its prevention is not always easy, but certain prophylactic measures are worthy of mention, such as in typhoid fever, thorough and systematic cleansing of the nasal cavities and the mouth. Prevention is least effective in severe inflammation of the pharynx when it occurs. In most cases the fixation is not exactly in the median line, but a little to one side of it, the vocal band being in the so-called cadaveric position, thus rendering it less likely to interfere with respiration. He notices, in connection with the cases, a marked chest expansion that occurs in many of them, due to the necessity of greater effort to produce a given volume tone. All causes of local irritation should be avoided in this condition and proper chest gymnastics employed. "Taking cold" should be specially guarded against, and under fairly favorable conditions the majority of sufferers get along comfortably.

21. **Trachoma.**—Alger points out the differences between follicular conjunctivitis and trachoma, the symptoms being quite similar, but the former is only a trivial affection. We should depend on the presence of true conjunctival hypertrophy as a sign of trachoma. He gives the formulas for treatment of ordinary folliculitis, using simple solutions of ichthyol, iodin, glycerin applied to the conjunctiva, zinc sulphate and opiates, while in trachoma much more energetic measures have to be employed.

Boston Medical and Surgical Journal.

January 22.

22 *Vaginal Celiotomy, Its Scope and Limitations. J. Riddle Goffe.
23 A Case of Acute Pancreatitis, and Necrosis of Fat Tissue; Laparotomy; Drainage; Death Nine Days After the Operation; Autopsy. George H. Monks and David D. Scannell.
24 Cerebral Syphilis. Albert E. Brownrigg.
25 The Importance of Careful Examination and Frequent Cultures in Doubtful Throat Cases. W. P. Coues.

22. **Vaginal Celiotomy.**—Goffe holds that any operation that can be done through the vagina as well as through an abdominal incision is better done along the vaginal route. He thinks any pathologic condition that is confined to the true pelvis can be thus dealt with satisfactorily and with as permanent results and far greater safety than through the abdominal incision. His cases have embraced every variety of disease from simple retroversion to fibroid tumors and dermoid cysts. The method lends itself to every form of conservative work on the uterus and appendages that has been suggested in the trend of recent modern gynecology. He holds that it will grow in favor with experience. He describes his methods, favoring generally the anterior colpotomy method of opening as being less dangerous and liable to untoward and annoying consequences.

Philadelphia Medical Journal.

January 24.

26 *Tropical Diseases. Introductory Lecture in a Course on Tropical Diseases, etc. Charles F. Kieffer.
27 An Early Case of Osteitis Deformans. J. C. Wilson.
28 *Six Years of Medical Journalism; A Retrospect. James C. Johnston.
29 Spontaneous Rupture of the Heart, with a Report of Seven Cases. Arthur S. Hamilton.
30 *Atmospheric Pressure and Epidemic Influenza in Philadelphia. Howard S. Anders.
31 Legal Tests of Responsibility. Richard Webb.

26. **Tropical Diseases.**—Kieffer in this introductory lecture notices the lack of stamina of tropical natives, their insufficient nutrition, and the great advantage which the colonists in the tropics have over the native in the struggle for existence. He remarks that there are very few purely tropical diseases, but some of the common diseases undergo very strange intensifications and attenuations, thus measles is fatal to certain tropical populations, while scarlet fever and diphtheria may be mild and trivial. Leprosy is now particularly a tropical disease, because it is there unchecked. He notices as factors of disease, heat affections, infections which are largely the same as anywhere else, and only a very few that are peculiar; parasitic diseases which are numerous in the tropics, and he calls attention to alterations of type and malignancy. Tuberculosis in the tropical native is slow, though it may be virulent in a colonist. Other diseases like epithelioma seem to tend to chronicity. There is an "overlay" of filariasis over all diseases in the tropical native which mystifies the etiologic picture. It is not difficult to explain how this occurs when we note the customs of their agriculture. The problem of immunity is the same in one place as another. Acclimatization he considers consists in a re-adjustment of manners, morals and habits that effects a corresponding change in the organism to meet the new environment. The effects of heat are noticed in particular; the increase of body heat, the diminution of respiratory function, depression of digestion, appetite and assimilation, the greater activities of the skin function and depression of the nervous system.

28. **Six Years of Medical Journalism.**—Johnston writes amusingly and sensibly of medical journalism, noting the difficulties, temptations, and aggravations to which the medical editor is liable. He considers society proceedings largely superfluous, and speaks particularly of the difficulty of keeping up proper abstracts and the thanklessness of the work. He emphasizes the essential point of keeping the medical editorship absolutely divorced from the advertising functions of the journal.

30. **Influenza.**—Anders has studied the effect of barometric changes on influenza epidemics and gives tables to illustrate his paper. A comparative inspection and analysis of the figures of two groups of years, twelve of sporadic or non-epidemic years, and twelve of the epidemicity of influenza, fail to justify any generalization. A study of the mean maximums and minimums for the same group of months and years shows uniformly lower maximums and higher minimums of recorded means (monthly) for the epidemic, as compared with the non-epidemic group of years. We find that the monthly means of the greatest ranges of barometric record (between highest and lowest points) manifest nothing characteristic, but he has noticed in the Weather Bureau records that the greater monthly absolute range is a marked feature of severe influenzal periods as compared with mild or sporadic years, the difference amounting to as much as 0.4 inch higher for the epidemic months. Lastly, the suggestion is offered that any relation between meteorological conditions and the prevalence of influenza that may exist will probably be found in the sudden, frequent, rapid and extreme variations and alterna-

tions of the phenomena occurring on certain days, just before or simultaneous to the influenzal outbursts, and not in data of the means of large groups of monthly and annual recordings. It is the lack of equability in the absolute daily (sometimes almost hourly) extremes, and not in the monthly or yearly averages or means.

St. Louis Medical Review.

January 17.

32 *Transmissibility of Plague. W. J. Calvert.

32.—See ¶9 above.

Cincinnati Lancet-Clinic.

January 24.

33 The X-ray as a Therapeutic Agent. Wm. Jordan Taylor.
34 Surgery of the Prostate, Pancreas and Diaphragm. (Continued.) B. Merrill Ricketts.

The Medical Age, Detroit, Mich.

January 10.

35 *Syphilis in Women. A. R. Williamson.
36 *The Physiological Action and Therapeutic Uses of the X-ray. C. M. Mutz.
37 To What Extent May We Hope by Treatment to Delay the Progress of Cataract? C. F. Clark.

35. **Syphilis in Women.**—The difficulties of diagnosis of syphilis in women are noticed by Williamson, the modified character of the chancre which varies with the tissue on which it occurs. The secondary symptoms are also different and confusing. Alopecia is apt to be slight and roseola likewise less prominent. The throat appearances may be variable and an uncertain guide. The sex is naturally lymphatic. This should be borne in mind in studying swollen glands and ganglia. Only in tertiary syphilis are the signs and symptoms the same in both sexes. Lastly, the cases are difficult to diagnose, because there is a natural tendency to deceive and conceal the condition which is perhaps stronger in women than in men.

36. **The X-Ray.**—Mutz thinks the *x*-ray a generally diffusible stimulant of the highest type, promoting the destruction of micro-organisms and inimical cells by increased phagocytic influence. It is not a universal germicide, however, and is certainly not an insecticide. He has not found its analgesic properties pronounced. Cataphoresis by the *x*-ray he considers dubious.

Annals of Surgery, Philadelphia.

January.

38 *Subdural Interposition of Rubber Tissue Without Removal of the Gasserian Ganglion in Operations for Tic Douloureux. Robert Abbe.
39 *Considerations Relative to Basedow's Disease. T. W. Huntington.
40 *Ureter-Catheterism: Its Purposes and Practicability. Bransford Lewis.
41 *On a Possible Cause of Difficulty in the Differential Diagnosis Between Renal Calculi and Hepatic Calculi. Charles E. Barnett.
42 *Some Points in Ligation of Arteries. Robert H. M. Dawbarn.
43 A Case of Tuberculosis, Resembling Carcinoma, in the Tongue of an Old Man. L. B. Zintsmaster.
44 Persistent Thyrolingual Duct; Complete Branchial Fistula. With Note on the Teaching of Embryology by Means of Clay Models. Horace J. Whitacre.
45 Cysts in Connection with the Teeth. John C. Oliver.
46 Excision of the Clavicle. H. Beeckman Delatour.
47 Osteoma of the Knee-joint. R. Tunstall Taylor.
48 Posterior Dislocation of the Head of the Tibia. John G. Sheldon.
49 An Apparatus to Facilitate the Application of Plaster Jackets During Spinal Hyperextension. Erasmus D. Fenner.

38. **Tic Douloureux Operations.**—Abbe advocates interposition of a sheet of rubber tissue as a permanent barrier to the reunion of a divided intracranial nerve, and holds that it would in many cases make unnecessary such severe operations as removal of the gasserian ganglion. He thinks operations on the ganglion have been overdone, and that resection of one-fourth to one-half inch of nerve anterior to the ganglion and within the cranium, and interposition of rubber tissue can be relied upon for a perfect cure up to six years at least. The probability of permanency is as great as in any other method. It is a simple, speedy and safe method, and therefore fulfills the highest aims of the best surgery. He reports a case of six years' standing with good results.

39. **Basedow's Disease.**—Huntington advocates early operation, before destructive tissue changes have occurred and before the function of important organs has been seriously, perhaps permanently, impaired and the patient's vitality lowered by chronic thyroid intoxication. Complete bilateral extirpation should never be attempted. A small fragment of the least affected lobe contiguous to the tumor can be isolated and left. He also favors local anesthesia in the operation, and in three of the four cases reported this was employed with good results by the Schleich method.

40.—This article appeared in THE JOURNAL, XXXIX, p. 1184.

41. **Renal and Hepatic Colic.**—Barnett attempts to show the close relationship existing between the pelvis of the kidney and the upper portion of the ureter on the right side, with the gall bladder, cystic duct, hepatic duct and communicating duct of the liver and the terminal ducts of the pancreas, with a sometimes similarity of symptoms from a pathologic invasion of any one of them, and more especially from stone formation. His paper is illustrated by skiagrams and illustrative cases, showing the difficulty of diagnosis between hepatic and renal calculus.

42. **Ligation of Arteries.**—Dawbarn advocates ligation of the arteries by the aid of a semicircular needle and holder, making a purse-string suture around the artery. The second part of his article deals with ligation of special arteries, of which he describes the technic.

University of Pennsylvania Medical Bulletin, Philadelphia.

January.

50 *A Study of Two Cases Nourished Exclusively per Rectum, with a Determination of Absorption, Nitrogen-Metabolism, and Intestinal Putrefaction. David L. Edsall and Caspar W. Miller.
51 *Experimental Evidence of Biliary Obstruction in Floating Liver. J. Dutton Steele.
52 *Gastroptosis: A Critical and Clinical Study; with References to 100 Cases. Albert P. Francine.
53 *The Value of a Knowledge of Anatomy from a Practical Standpoint. Gwilym G. Davis.

50. **Rectal Nutrition.**—Edsall and Miller report their cases and discuss the condition at length, reviewing the literature. They say in conclusion:

> Rectal alimentation in exceptional cases provides enough food to the tissues to prevent tissue loss. Even in such favorable cases the best that can be done is to keep the patient from losing ground when he is already in a condition of decided subnutrition. Usually food administered per rectum is very imperfectly absorbed, and consequently rectal enemata, as a rule, supply only a very small part of the amount of food necessary in order to maintain a nutritive equilibrium.

51. **Floating Liver.**—Steele has experimented on cadavers to reproduce the conditions of floating liver so as to test the effects in inducing biliary obstruction. He found that the pressure rose steadily as the anterior border of the liver was allowed to sink, and at the lowest point was 2½ times that required when the liver was in its normal position. He goes to some length in explaining the conditions as they probably occur during life. In many cases the pressure is too transitory to permit of obstruction and absorption of bile, and the parts adjust themselves so that there is no kinking or torsion. The obstruction may not always be in the common duct. In conclusion he briefly reports cases, collected from the literature, of floating liver with jaundice without gallstones.

52.—This article has appeared elsewhere. See THE JOURNAL of January 17, ¶1, p. 192.

53.—This article appeared elsewhere. See abstract in THE JOURNAL of January 17, ¶1, p. 192.

American Journal of Medical Sciences, Philadelphia.

January.

54 *Sarcoma of the Third Cervical Segment; Operation: Removal; Continued Improvement. James W. Putnam, William C. Krauss and Roswell Park.
55 *Studies of Ovarian Embryomata, or So-called Ovarian Dermoid Cysts. William F. Jelke.
56 *Adrenal Tumors. Paul G. Woolley.
57 *On Adrenalin Glycosuria and Certain Relations Between the Adrenal Glands and Carbohydrate Metabolism. C. A. Herter and A. J. Wakeman.
58 A Report of Two Cases of Multiple Sclerosis, with Necropsy; with Remarks on Muscular Atrophy, Secondary Degeneration, and Loss of Tendon Reflexes, with Increased Muscular Tonicity, Occurring in this Disease. William G. Spiller.
59 *Eosinophilia in Pelvic Lesions and in the Vermiform Appendix. William H. Weir.
60 *The Pathology of the Tissue Changes Induced by the X ray: Preliminary Report. A. G. Ellis.
61 *Paracolon Infections, with Report of Three Cases. Herbert W. Allen.

62 *Malta Fever: Its Occurrence in the United States Army, with a Review of the Literature. Charles F. Craig.
63 *On Multiple Serositis—The Association of Chronic Obliterative Pericarditis with Ascites, with Particular Reference to the "Pericarditic Pseudocirrhosis of the Liver" of Pick and the "Iced Liver" (Zuckergussleber) of Curschmann. Aloysius O. J. Kelly.

54. **Sarcoma of the Third Cervical Segment.**—The case described is considered unique for several reasons. 1. It is the only tumor of the spinal cord affecting the upper cervical region that has so far been recorded. 2. It is the only cervical cord tumor which has gone on to an uninterrupted course toward recovery. 3. It was definitely located and quickly removed without sacrifice of spinous processes and laminæ, and the short incision made a remarkably rapid closure. 4. The involvement of the phrenic nerve added an element of danger which was quickly removed during the progress of the operation. 5. From the surgeon's standpoint, it was located in the most inaccessible portion of the spinal cord, by virtue of the cervical curvature of the spinal column offering a concave field for operation instead of a convex. It was attached partly to the dura, and was about 2 cm. in length, and in diameter a little greater than that of a common lead pencil. The growth was not particularly vascular, but adrenalin solution was applied as a matter of precaution and the surgical recovery was perfect.

55. **Ovarian Embryomata.**—The subject of ovarian teratomata is discussed at length by Jelke, who favors the theory advanced by Wilms that the condition is not of congenital origin, but is of ovulogenous derivation. Three cases are reported. Structures from the three embryonal primordial layers were found in each of them, with the exception of one, and here advanced degeneration of the tissues interfered with the absolute distinction of tissues. In none of the specimens were there any fetal inclusions or remains of congenital malformations found.

56. **Adrenal Tumors.**—Woolley gives a general description of adrenal tumors, and details the varieties. He concludes with a tabulated statement of 22 primary carcinomatous tumors and an extensive bibliography.

57. **Adrenalin Glycosuria.**—Herter and Wakeman give an account of an experimental investigation which seemed to show that there is a close relationship between the adrenal glands and the carbohydrate metabolism. They do not deem, however, that we have as yet succeeded in obtaining unequivocal evidence that the phenomena described are due to excessive influence of the adrenal internal secretion or to the exclusion of this secretion from the circulation. They suggest that some of the phenomena can be accounted for by the imperfectly understood nervous factors in play. Further experiments are required to determine whether the internal secretion hypothesis is tenable.

59. **Eosinophilia in Pelvic Lesions.**—The following are Weir's conclusions:

1. Eosinophiles take a prominent part in the cellular infiltration associated with inflammatory and suppurative processes of the pelvic organs. 2. In such conditions they usually occur in the largest numbers in the subacute stage and associated with connective tissue hyperplasia. 3. Eosinophilic infiltration is found in most cases of carcinoma of the cervix and in almost all cases of pyosalpinx and ovarian abscess. 4. In inflammatory conditions of the endometrium eosinophiles occur in small numbers and in but few cases. 5. Eosinophiles represent a large proportion of the cells forming the stroma of the mucosa in the normal and the diseased appendix. 6. In inflammatory conditions of the pelvic organs associated with an eosinophilic infiltration of the tissues the percentage of eosinophiles in the circulating blood is rarely increased, and usually decreased.

60. **X-Ray Tissue Changes.**—The article by Ellis is largely a discussion of the literature and report of careful examinations of cases. A study of the cases shows: 1. Necrosis of cells and trabeculæ of varying degree, and in one also marked fatty degeneration. 2. Increase of elastic tissue in the three cases examined, both before and after exposure. 3. Fewer areas of lymphocytic infiltration in one case after exposure, about equal numbers in others. 4. A tendency to occlusion of vessels by deposits on their inner surfaces, marked in some instances, not so prominent in others. 5. Practically entire absence of infiltration by polymorphonuclear leucocytes. While these results do not warrant conclusions, especially as further studies are being made as regards the nerve and blood changes, he offers the following suggestions:

1. Beck and others lay great stress on blood vessel changes as the cause of necrosis. While endarteritis is probably induced by the *x*-ray, the accompanying tissue necrosis seems out of proportion to the vessel changes, suggesting the possibility of these being *pari passu* results of the same influence, instead of cause and effect.
2. The presence of immense numbers of cocci and bacilli in the tissues of Case 3, after twenty exposures to the *x*-ray, would argue against the possession by that agent of bactericidal power. It should be said that the pathogenicity of these micro-organisms was not proven.
3. The unsatisfactory clinical results as well as the slight microscopic changes in Case 3 can probably be safely attributed to the presence of the exceedingly numerous keratinized areas or pearls. This emphasizes the importance of curetting or cutting away diseased tissue, whenever feasible, before instituting treatment by the *x*-ray.

61. **Paracolon Infection.**—Three cases are reported by Allen with bacteriologic data and agglutination tests. He says while no definite conclusions can be drawn regarding the pathology of the disease, it is evident that we have in it a distinct infection from that of typhoid fever.

62. **Malta Fever.**—Craig reports cases occurring in the American soldiers, and reviews the other papers that have been written on the subject from the same point of view. He says the following conclusions may be drawn from a study of these cases:

1. There occurs in the tropics and sub-tropics a fever which may resemble in its acute stage either typhoid or malaria, and in its chronic stage articular rheumatism, caused by the *Micrococcus melitensis*. 2. There are no pathognomonic symptoms of Malta fever. The symptoms observed are so inconstant and confusing that no one of them can be said to be typical of the disease. 3. A differential diagnosis of this fever is almost impossible in the majority of cases without the aid of the microscope and the serum test.

63. **Multiple Serositis.**—Kelly points out the diagnostic differences between multiple serositis and other ascitic conditions, remarking that special attention should be directed to the following points:

History of previous attacks of acute pericarditis, pleuritis, peritonitis, perihepatitis, to the early occurrence of subsequent disorders, edema of the legs, to marked ascites with little or no edema of the legs, enlarged liver early in the course of the disease, absence or very late appearance of marked enlargement of the spleen, a tendency to the occurrence of repeated attacks, pain, tenderness, rigidity and possibly palpable and audible frictions in the right hypochondriac region, attributable to perihepatitic attacks, to the rapid recurrence of ascites after tapping, and to the physical signs of adherent pericardium, which are essential to the diagnosis.

In the diagnosis of adherent pericardium most help will be derived from a weak or absent apex-beat, especially in cases in which there is no increase in the area of cardiac dulness, systolic retraction of a considerable area about the apex, systolic retraction of the base of the left chest posteriorly, arrest of the normal respiratory movements in the epigastric angle, imperfect descent of the apex-beat during inspiration and the absence of change in the limits of the cardiac dulness during respiration, absence of increase of the cardiac dulness to the right, despite marked engorgement of the veins of the neck; a diastolic shock or rebound of the heart; evidences of dilatation or hypertrophy of the heart in the absence of valvular or other disease that might cause it; absence of the characteristic changes in the heart in the presence of definite valvular disease—that is, absence of the usual hypertrophy of the right ventricle in mitral disease and of the left ventricle in aortic disease; absence of pericardial effusion in the presence of pleural and peritoneal effusions; paradoxic pulse—inspiratory diminution in the force and volume of the pulse; diastolic collapse and inspiratory swelling of the veins of the neck; and, as suggested by Musser, the non-occurrence in young subjects with valvular disease and cardiac insufficiency of the characteristic improvement following the administration of digitalis. None of these is pathognomonic of adherent pericardium; all will not be present in every case; but in many cases a sufficient number may be present to warrant the diagnosis. Finally, this obliterative pericarditis with ascites may be distinguished from cirrhosis of the liver; by the aforementioned symptoms and signs of adherent pericardium; by the absence of etiologic factors of cirrhosis of the liver; by the slow, insidious, protracted and intermittent course of the disease; by the long periods of standstill during which the ascites may remain stationary and the patient in good condition; by the entire absence or the transient presence of slight jaundice; by the absence in most cases of portal congestion and gastrointestinal disturbances—hemorrhage, diarrhea, hemorrhoids, enlargement of the spleen, marked dilatation of the superficial veins of the abdominal wall, etc.; in some cases, by the association of an enlarged, smooth, and firm liver, with marked ascites; and by the fact that in many cases the patient survives a large number of tappings.

Journal of Nervous and Mental Disease, New York.

January.

64 *On Amaurotic Family Idiocy. A Disease Chiefly of the Gray Matter of the Central Nervous System. B. Sachs.
65 *The Postero-lateral Scleroses. Charles W. Burr and D. J. McCarthy.
66 Paralysis of all Four Limbs and of One Side of the Face, with Dissociation of Sensation, Developing in a Few Hours and Resulting from Meningo-myelocephalitis. Charles K. Mills and William G. Spiller.

64. **Amaurotic Family Idiocy.**—Sachs reports a case with necropsy findings, and discusses the condition. He thinks it indicates that the disease affected primarily, or at least to a great extent, the entire gray matter of the brain and spinal

cord, an abiotrophy, as Gowers calls it. There is a deficient vitality of gray matter of the central nervous system. He does not claim that all cases are identical, but it seems to him that the most reasonable inference is that in amaurotic family idiocy the entire central gray matter is the seat of intense degeneration, and that somewhat similar changes are found in conditions more or less closely allied to this special type of family disease. He thinks the subject should be carefully studied and every new case fully reported, with special attention to changes in the gray matter of the brain and spinal cord.

65. **Postero-Lateral Scleroses.**—Burr and McCarthy report several cases, with examinations, and note the difficulty of proper classification. They offer the following classification for clinical and laboratory purposes:

1. Friedreich's ataxia. 2. Tabes with associated diffuse sclerosis extending into the lateral columns. To this group may be added those cases of tabes associated with paretic dementia with secondary lesions in the crossed pyramidal tracts. 3. Tabes with degeneration in the crossed pyramidal and also in the direct cerebellar tracts, with or without degeneration in Clarke's column. 4. Posterior sclerosis with sclerosis of the lateral columns and disease of the anterior horns. (Chronic poliomyelitis.) 5. Primary lateral sclerosis with minor changes in the posterior columns. 6. Subacute diffuse degeneration of the spinal cord, due to anemia, cachexias, sepsis, etc., with sclerosis in the posterior and lateral tracts predominating, both in clinical manifestation and under the microscope. 7. Diffuse interstitial sclerosis, seen occasionally in chronic alcoholism with multiple neuritis, in which the parenchymatous degeneration is secondary to the overgrowth of glial and connective tissue elements. To this same group on account of similarity of the pathologic process may be added the syphilitic postero-lateral scleroses secondary to meningeal lesions. 8. A combined system disease of unknown origin, affecting the posterior and lateral columns, and distinctly confined to the direct and crossed pyramidal tracts and the posterior columns; the direct cerebellar tract may also be involved.

Medicine, Detroit, Mich.

January.

67 Restoration of Sight in a Nearly Blind, Cancerous Eye by Cancroin. Albert Adamkiewicz.
68 Surgery of Prostatic Obstruction. Louis E. Schmidt.
69 *The Practical Diagnosis of Gastric Cancer. A. L. Benedict.
70 *On Certain Precautions Required in Making and Interpreting the So-called "Colon Test" for Potable Waters. Samuel C. Prescott.
71 Centenarians in Massachusetts. J. M. French.

69. **Gastric Cancer.**—The symptoms are reviewed by Benedict. He warns especially against the use of age and duration of the disease in making the diagnosis. Cancer at about 30 is by no means rare, and he says patients may have what their former attendants call malignant cachexia for many years, and have continued well in spite of it.

70. **The "Colon Test" for Potable Waters.**—Prescott recapitulates the points made in his paper as follows:

1. Bacteria corresponding in every way to *B. coli* are by no means confined to animal intestines, but are widely distributed elsewhere in nature. 2. The finding of a few colonies of *B. coli* in large samples of water, or its occasional discovery in small samples does not necessarily have any special significance. 3. The detection of *B. coli* in a large proportion of small samples (1 cubic centimeter or less) examined is imperatively required as an indication of recent sewage pollution. 4. The number of *B. coli* in water rather than their presence should be used as a criterion of recent sewage pollution. 5. Inasmuch as some red colonies other than those of *B. coli* appear on a litmus-lactose-agar plate, this test alone cannot be regarded as diagnostic. 6. In tests for the presence of *B. coli* by the usual methods the possible inhibitory effect of lactic-acid-producing streptococci must not be overlooked.

Annals of Gynecology and Pediatry, Boston.

January.

72 Endometritis. H. J. Boldt.
73 *Some Views of Diphtheria and the Employment of Antitoxin. Charles C. Partridge.
74 Acute General Peritonitis a Sequela of Measles. Everett S. Hicks.

73. **Diphtheria Antitoxin.**—Partridge holds that diphtheria antitoxin is too little used and in too small a quantity; that we need not fear giving too much, and that the most careful asepsis should be employed in its administration hardly needs emphasis.

Chicago Medical Recorder.

January 15.

75 *The Changes in the Spinal Cord and Medulla in Pernicious Anemia. Frank Billings.
76 *Case of Funnel Pelvis with Cesarean Section. Charles B. Reed.
77 Arteriosclerosis of Retina and Choroid. Charles H. Beard.
78 Some Eye Disorders in Children Influenced by Malnutrition, Diathesis and Dyscrasia. A. C. Cotton.
79 The Most Prevalent Eye Diseases of Childhood. F. C. Hotz.
80 Eye Affections Indicative of Nervous Diseases. H. Gradle.
81 *Sclerosis of the Mastoid Process. Otto J. Stein.
82 A Curious Case of Emphysema. G. G. Taylor.

75. **Pernicious Anemia.**—Billings describes elaborately the spinal changes of pernicious anemia in severe cases, and offers general remarks on the condition. The conclusions which he draws are:

1. That there is a well-established relation of diffuse cord degeneration with pernicious anemia. 2. It seems probable that the hemolysis and the cord changes are due to the same toxin. 3. While the source of the toxin is unknown, the fact that gastro-intestinal disturbance is so common in the disease would lead one to suppose that it is of intestinal origin. 4. The diffuse degenerations of the spinal cord which occur in conditions without pernicious anemia do not appear to differ essentially from those of pernicious anemia. 5. It is possible that a common blood circulating poison exists, which may expend its force upon the blood in one individual, upon the nervous apparatus in another, and coincidently upon the blood and spinal cord in others.

76.—See abstract in THE JOURNAL, xxxix, p. 1612.

81.—Ibid., p. 1612.

Therapeutic Gazette, Detroit, Mich.

January 15.

83 *The Use of Morphin in Uremic Convulsions—A Symposium.
84 *The Therapeutic Status of the Coal-tar Products in Neuralgia and Other Painful Conditions. Wharton Sinkler.
85 *Coal-tar and Its Derivatives in the Treatment of Diseases of the Skin. M. B. Hartzell.
86 *The Therapeutic Status of the Coal-tar Production in General Nervous Affections. F. Savary Pearce.
87 A Study of Tuberculin and Allied Products, with Reference to Their Action and the Proper Method of Their Administration. F. M. Pottenger.
88 Another Case of Aortic Aneurism Treated by Electrolysis. H. A. Hare.

83. **Morphin in Eclampsia.**—The editor of the *Therapeutic Gazette* has sent out letters asking for opinions as to the value and utility of morphin in uremic convulsions. Answers are published from Drs. James Tyson, W. Hale White, William Ewart, Frank Billings, John H. Musser and James M. Anders. The general opinion seems to be that morphin is harmful in most conditions, especially in interstitial and chonic nephritis. It is only in cases of acute parenchymatous trouble that it may be of value, and then in moderate or very small doses. Still, there is some difference of opinion as to its exact application. Billings considers it a cardiovascular tonic and of great value in cases where there is dilatation of the heart with vasomotor stasis and a tendency to lung edema. He would give strychnin in connection with morphin. Musser has seen it apparently useful in one or two cases of chronic interstitial nephritis.

84, 85, 86.—See abstracts in report of Philadelphia County Medical Society in this issue.

Occidental Medical Times, San Francisco.

January.

89 Diagnosis of Diseases of the Gall-bladder. Wm. Watt Kerr.
90 Acute Phlegmonous Cholecystitis. L. W. Allen.
91 *Improved Treatment of Chronic Follicular Urethritis. George L. Eaton.
92 Obstetrical Technique in General Practice. Z. Taylor Malaby.

91. **Chronic Follicular Urethritis.**—Eaton describes the method of treatment adopted by him, which he thinks is simple and effective. He first had a canula made, 20 cm. long, No. 20 gauge, curved at its proximal end, with a smaller curved point, which can be introduced direct into the orifice of the ducts. This is attached to a syringe and a urethroscope of not less than 25 French scale introduced into the urethra. He first irrigates the urethra with saline solution before inserting the urethroscope and then applies a 50 per cent. peroxid of hydrogen solution directly into the follicles, through the point of the canula. After all the observable glands have been treated, he again irrigates the urethra, then reintroduces the urethroscope and re-treats each gland with a 5 per cent. solution of albargin. Finally, he again irrigates the urethra with normal saline solution for the third time, before the injections and after. He thinks many cases thus treated will be permanently relieved of urethral irritation.

The Journal of Advanced Therapeutics, Rahway, N. J.

January.

93 Epithelioma of the Tongue. Charles Dickson.
94 A New System for Producing a Slowly Alternating Current of Large Amperage for Therapeutic Uses. Lucy H. Brown.
95 *Some Clinical Indications for the Use of the Electric-light Bath. T. D. Crothers.
96 Report of the Committee on Current Classification and Nomenclature.
97 Clinical History and Progress of a Case of Pulmonary Disease Treated Exclusively by Mechanical Vibratory Stimulation. Maurice F. Pilgrim.

95. The **Electric-Light Bath.**—Crothers describes this bath, its method of operation, and its indications. It is a diaphoretic, antipyretic, soporific and heart stimulant. The disorders which seemed most influenced were neuritis, gastritis, myalgia and extreme nervous irritation. Exhaustion is never observed following it.

Cleveland Medical Journal.

January.

98 *The Prevention of Consumption. Frank Warner.
99 An Ideal Sanatorium. With Notes on the Black Forest. John H. Lowman.
100 A Plea for the Early Operative Treatment of Quinsy (Peritonsillar Abscess). J. Park West.
101 Exhibition of Specimens. Walter Lincoln.
102 Cleanliness in the Care of Child-birth. E. B. Shanley.
103 *Preliminary Note on a Method of Resuscitation of Apparently Recently Dead Animals. George W. Crile.

98. **Tuberculosis.**—Warner says the conditions which favor the introduction of consumption are: 1. Concentration of poison, modified by ventilation and environment; 2, intimate association and prolonged contact with a tuberculous individual; 3, ill health, especially the result of exhausting and debilitating diseases; 4, feeble power of resistance, known as hereditary tendency; many people are born with a phthisical tendency, and have a special susceptibility to the infection; 5, slight acclimatization of the individual to the tubercular infection; 6, occupation; 7, diet, and 8, climate. He recommends a better attitude of the public toward victims of tuberculosis, who are not dangerous if they take proper care of themselves.

103.—See THE JOURNAL, January 24, p. 244.

Virginia Medical Semi-Monthly, Richmond.

December 26, 1902.

104 New Method of Operation for Laceration of Perineum, and for Rectocele and Cystocele. Alfred B. Tucker.
105 Headaches and Their Treatment. C. W. Canan.
106 Antistreptococcic Serum in Septic Conditions. C. E. Ruth.
107 A Plea for Mothers and Their Offspring. Thomas S. Hening.

Virginia Medical Semi-Monthly, Richmond.

January 9.

108 Paucity of the General Symptoms Manifested in Some Cases of Brain Tumor. J. Allison Hodges.
109 Some Facts About Electricity as a Therapeutic Agent. F. B. Bishop.
110 A Unique Case of Priapism. Elmer Sothoron.
111 Formula of a New Modification of Ehrlich's Triple Stain. T. H. Toynbee.

Northwestern Lancet, Minneapolis.

January 15.

112 Fractures of the Skull. James H. Dunn.
113 Common Painful Feet. J. Clark Stewart.
114 Insanities from Autogenic Poisoning. W. A. Jones.
115 Peritoneal Adhesions Observed in Autopsic Abdominal Inspection. Byron Robinson.

Dominion Medical Monthly, Toronto.

January.

116 The Treatment of Rheumatism. J. T. Fotheringham.
117 Surgical Indications in Rheumatism. R. B. Nevitt.

Pacific Medical Journal, San Francisco.

January.

118 Venous Anastomosis for Ascites from Cirrhosis of the Liver. Winslow Anderson.
119 Medical Aspect of Venous Anastomosis of the Liver. H. D'Arcy Power.
120 The Use of Word Marks to Protect Science and Legitimate Commerce in Materia Medica Products. F. E. Stewart.
121 Imperforate Rectum; Operation; Recovery. Ernest Hall.
122 The Ideals of Preventive Medicine. (To be continued.) Victor G. Vecki.
123 Diphtheria and Antitoxin. Hubert N. Rowell.

Western Medical Review, Lincoln, Neb.

January 15.

124 The Business Phases of Our Daily Work. I. N. Pickett.
125 Influenza. Edward S. Blair.
126 Monstrosities. W. R. Hobbs.
127 Autointoxication in Relation to Nervous and Mental Disorders. Jay G. Roberts.
128 Significance of Nephroptosis. A. F. Jonas.
129 Some Phases of Typhoid Fever. J. M. O'Connell.
130 A Case of Hepatic Abscess. Emma W. Demaree.
131 Congenital Hernia of the Liver Into the Umbilical Cord, with Report of a Case. J. W. Bullard.
132 Intestinal Obstruction. W. J. Pinkerton.
133 The Smallpox Problem. W. H. Slabaugh.

Bulletin of the American Academy of Medicine, Easton, Pa.

December, 1902.

134 Time-allowance in the Combined Collegiate and Medical Course. A. L. Benedict.
135 Report of the Committee on Reciprocity in Medical Licensure. Edward Jackson.

Medical Sentinel, Portland, Ore.

January.

136 X-ray Therapy. N. G. Blalock.
137 Poisoning During Chloroform Anesthesia in the Presence of a Naked Flame. Kenelm Winslow.
138 President's Address, Portland Medical Club. Sara Hill.
139 An Unusual Case of Umbilical Hernia. Ernest A. Hall.

Vermont Medical Monthly, Burlington.

December 25, 1902.

140 State Prevention of Tuberculosis. J. Edward Stubbert.
141 Some Therapeutic Considerations. Edward R. Clark.
142 Tuberculosis in Vermont. H. Edwin Lewis.

Medical Herald, St. Joseph, Mo.

January.

143 Chronic Muscular Atrophies of Surgical Origin—With Report of Cases. F. E. Coulter.
144 Surgical Treatment of Congenital Cleft Palate. A. P. Condon.
145 Ileo-colitis. W. Berry.
146 Uretero-cystostomy. A. I. McKinnon.

American Medical Compend, Toledo, Ohio.

January.

147 *The Irrational Starvation Treatment of Appendicitis. John B. Deaver.
148 Appendicitis. Wm. J. Gillette.
149 Cancer of the Stomach. M. Stamm.
150 Uretero-Intestinal Anastomosis. Julius H. Jacobson.
151 Acute Glandular Fever. L. Marsh Dolloway.
152 Pneumonia. S. A. Hitchcock.
153 A Plea for Early Treatment of the Alcohol, Morphin, Cocaine and Allied Narcotic Drug Habits. Auguste Rhu.
154 Minor Injuries of the Eye. William B. Van Note.

147.—See abstract in THE JOURNAL, XXXIX, p. 853.

Archives of Pediatrics, New York.

January.

155 *Peribronchitis and Interstitial Pneumonia. A. Jacobi.
156 A Case of Achondroplasia (Micromelia). Charles Herrman.
157 A Case of Rheumatic Purpura. George Montague Swift.
158 Congenital Dilatation of the Small Intestine. J. N. Hall.
159 A Case of Double Mitral Disease, Probably Congenital. Leo Bernd.

155. **Peribronchitis and Interstitial Pneumonia.**—Jacobi suggests that so-called interstitial pneumonia, or what he prefers to call pulmonary hyperplasia with secondary sclerosis, is frequently an independent disease, and that full recovery from it is by no means an uncommon occurrence; that, indeed, a certain degree of pulmonary cirrhosis is not an obstacle to comfort and activity. He details the differential diagnosis. The best preventive is the avoidance of infection and colds. We can do much medicinally with tissue builders, arsenic, phosphorus, etc.; the equivalent of a grain of digitalis given daily, for several months in succession. A baby of a year may take ten drops of the elixir of phosphorus of the pharmacopeia three times a day for three months in succession. Children of 5 to 7 years who do not thrive on that treatment and get iron enough in their food should be suspected of a parasyphilitic infection. He speaks in conclusion of the advantages of climate and outdoor life.

Medical Bulletin, Philadelphia.

January.

160 The Pavilion and Open-air Treatment of Tuberculosis. John V. Shoemaker.
161 Congenital Dislocation of the Hip. Adolf Lorenz.
162 A New Operation for Excision of the Fifth Nerve. William L. Rodman.
163 A Clinical Lecture on Some Mental and Nervous Diseases. F. Savary Pearce.
164 Interesting Cases of Typhoid Fever: One Probably Illustrating a Prolonged Incubation-period; Another Complicated with Acute Articular Rheumatism. James M. Anders.

Merck's Archives, New York.

January.

165 Phosphorus Therapeutically Considered. W. C. Cooper.
166 The Treatment of Croupous Pneumonia. H. A. West.
167 An Index of Diseases Alphabetically Arranged, with Their Modern Treatment (Cholera Infantum). G. Bjorkman.

Fort Wayne Medical Journal-Magazine.

December, 1902.

168 Some Therapeutic Uses of Carbolic Acid. J. S. Boyers.
169 Cryoscopy of the Urine. G. W. McCaskey.
170 Oviducal Glands. Byron Robinson.

Texas Medical Journal.

January.

171 A Proposed Bill for a State Board of Health.
172 A Report of Cases of Abdominal Surgery. Henry K. Leake.

Old Dominion Journal, Richmond, Va.

January.

173 Appendicitis. Maurice H. Richardson.
174 The Treatment of Syphilis by Hypodermic Injections of Mercury. Stanley H. Graves.

175 Laboratory Diagnosis and the General Practitioner. B. M. Randolph.
176 Demonstration of a New Holder for Gigli Saws. J. Shelton Horsley.
177 Pure Food. J. M. Whitfield.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

January 17.

1 *Geographical Distribution of Stone and Calculous Disorders. Reginald Harrison.
2 A Demonstration of the Operation of Internal Urethrotomy and of a Urethrotome. C. B. Lockwood.
3 Total Extirpation of the Prostate: Freyer's Operation. R. C. Elsworth.
4 Case of Bullet Wound of Bladder and Both Hips: Operation; Recovery. H. Goodman.
5 A Clinical Lecture on Two Cases of Chorea Gravidarum. D. Berry Hart.
6 Ovariotomy Seven Years After Vaginal Hysterectomy. G. Granville Bantock.
7 Removal of an Ovarian Fibroma from a Patient, Aged 73 Years. Frederick J. McCann.
8 Notes of Ten Cases of Hysterectomy for Fibroid Disease. Thomas H. Morse.
9 Rupture of the Uterus, with Recovery. Claude B. Pasley.
10 A Case of Transplanted Uterine Fibroid Giving Rise to Intestinal Obstruction. E. Percy Paton.
11 Case of Ruptured Ectopic Gestation. J. Gay Moffat.
12 Two Cases of Mitral Stenosis Complicated by Pregnancy. G. A. Wilkes.

1. **Calculus.**—Harrison notices the various geographical distributions of calculus and its origin. He agrees with Rainey's views as to formation, but says, while the presence of material is necessary, other conditions must exist. Geographical considerations indicate that there may be in certain places a fortuitous concurrence of conditions that effect a concretion of the normal or abnormal supply of concretable matter in the individual. This indicates the possibility of preventing local conditions. Certain mineral waters, for example, while not reducing the amount of uric acid in the system, seem to prevent its concretion. He mentions drugs such as sodium salicylate and benzoate, urotropin and boracite and what was called in olden times "Dutch drops," being a mixture of oil of turpentine, tincture of guaiacum, spirit of nitric ether and small portions of the oils of amber and cloves. From a trial of this latter he has no doubt of its efficacy. It can be conveniently taken in capsule form. Some years ago his attention was called to a salt called boracite, which he thinks is well worth attention in the preventive treatment of calculus. He has employed it in the last two years, and reports a case showing its success in disintegrating a kidney concretion.

The Lancet, London.

January 17.

13 *The Anesthetization of So-called "Difficult" and "Bad" Subjects. Frederic W. Hewitt.
14 The Intracranial Complications of Septic Ear Disease. Frederic Eve.
15 *Chronic Obstruction of the Cecum and Ascending Colon. W. Arbuthnot Lane.
16 *Some Observations on Cyanosis. G. A. Gibson.
17 Two Cases of Cesarean Section for Obstruction Due to Fibroid Tumors. Arthur H. N. Lewers.
18 Diffuse Carcinomatosis of the Stomach and Intestines. A. W. Nuthall and J. G. Emanuel.
19 *On the Results in 50 Cases of Abdominal Hysterectomy for Fibroid Diseases of the Uterus, with Remarks on the After-History of the Patients and on the Artificial Menopause. C. J. Bond.
20 *A New Film Dressing for Wounds. Peyton T. B. Beale.
21 The Restoration of the Inferior Turbinate Body by Paraffin Injections in the Treatment of Atrophic Rhinitis. R. Lake.
22 *The Variability in Virulence of the Pneumococcus. H. Sinigar.

13. **Anesthesia.**—Hewitt's second lecture deals first with bad subjects for anesthesia where the cause is due to some embarrassment of respiration, such as post-nasal growths, enlarged tonsils, fixity of the lower jaw, angina Ludovici, etc. In these cases all asphyxiating anesthetics are to be avoided. Pure nitrous oxid may be a poison in angina Ludovici, while the abuse of ether may also have a bad effect. They are best treated by a slow administration of a mixture of ether and chloroform with plenty of air, only moderate anesthesia being advisable in the worst cases. Where there is general bronchitis, tracheal stridor, orthopnea and some lividity, it may be hazardous to administer chloroform, even in analgesic doses. He has on two occasions known a lengthy administration of chloroform to an elderly patient with chronic bronchitis to be followed by fatal increase of the disease, and this points out a danger not always realized. Patients who have been confined to bed with some constitutional disease are not, as a rule, bad subjects for anesthesia, but it does not follow that a smooth anesthesia will be obtained. Much seems to depend on the type to which the patient belonged before his illness and the duration of the malady. The robust man who has suffered from appendicitis may not be a good subject. Patients suffering from heart disease are not bad subjects, provided the methods employed are suitable. Air-limitation in these cases must be practiced with caution, and he thinks even the administration of pure nitrous oxid contraindicated in the more advanced forms of heart affections. Many difficulties are explained by the assertion that the patient was nervous. He doubts whether mental disquiet leads to any great trouble, but in a few cases he has satisfied himself that the patient's nervous state has given him some trouble, and large quantities of anesthetic may be required. Alcoholic subjects are notoriously bad ones. Hewitt remarks as to the special influence of the excessive use of tobacco in making the anesthesia difficult. There is likely to be considerable spasm of the jaws in some cases, which he suggests may be due to suction, puffing and other movements, essential to the smoking of a pipe, and causing muscle hypertrophy. If in any case we find two, three or four of these conditions associated, the difficulty is naturally increased. The pure types are not common. Athletes frequently have nasal obstruction, which, with good muscle development and good teeth, may produce considerable trouble. If excessive smoking has also been the habit, the case will be still further embarrassed; similarly with drinking. In some of these cases the tongue has to be drawn forward while chloroform, the only possible anesthetic, is given. If there is grave constitutional disorder existing, as, for example, in a stout, breathless old man, an excessive smoker and drinker, suffering for years from nasal polypi and seized with acute intestinal obstruction, no worse subject can be imagined. He advises putting these patients on their side and using chloroform and ether mixture or the A. C. E. mixture to begin with, substituting for it ether when the anesthesia is continued. Lastly, he mentions cases where no cause is evident for the trouble, and he warrants the retention of the term idiosyncrasy for such cases.

15. **Chronic Obstruction of the Cecum and Ascending Colon.**—Lane calls attention to a condition which he thinks often is responsible for obstruction to the free passage of the intestinal contents, namely, angulation or semi-kinking of the hepatic flexure, due to a mal-development of the mesentery. He thinks that in a certain proportion of cases of so-called appendicitis the primary factor is just this condition, and that the trouble in the appendix is a secondary matter. The symptoms, of course, vary within wide limits, according to the different conditions, producing sometimes complete intestinal obstruction and in other cases either pain or uncomfortable sensation along the last dorsal, ilio-hypogastric, and ilio-inguinal nerves with dragging in the loin and tenderness on pressure or on percussion immediately below the last rib posteriorly. These suggest renal trouble, and mistakes may be made. The assumption of the recumbent posture and free purgation generally relieve these cases, but they may recur for many years. He thinks the habit of removing the appendix through a very small incision is injudicious. In the conclusion of his paper he describes his method of nephropexy, exposing the kidney with an oblique incision in the loin, freeing it from fat, and stripping the capsule on one side from its lower two-thirds in the form of six triangles, the bases being left intact. Each of these flaps are twisted up, and a piece of sterile silk twist is tied securely to it. The kidney is replaced within the abdomen in such a position that little more than one-half is exposed below the left rib. Needles are placed on each silk thread, and they are passed through the last intercostal space and through the abdominal muscles within an inch of their cut margins, so as to bring the raw surface of the kidney into apposition with the deep surface of the muscle wall freed

from fat and fascia. When these sutures have been secured the resistance offered by the capsule is sufficient to require the expenditure of a considerable amount of force to displace the kidney from the position in which it is fixed. The incision in the muscle wall and skin are then accurately closed. In this operation, as in any other requiring buried sutures, the surgeon should be exceedingly careful that no ligature left in the wound has been touched by the hand on any excuse whatever. He has never seen the method fail.

16. **Cyanosis.**—Gibson discusses cyanosis and reports cases and he recalls a former article in which he had explained the phenomena by assuming an increase of red corpuscles and hemoglobin, being due to diminished waste from lessened metabolism, and hence longer vitality of the cells. He reports two cases in which attempts were made to ascertain the effect of oxygen inhalations on the cyanosed condition, which would seem to indicate that they are barren of result.

19. **Fibroids.**—Bond analyzes fifty cases and concludes that the decision as to operation in fibroid disease of the intestine must depend on the danger to life and the amount of disablement, ill health and suffering which are caused by the disease. The social position of the patient may have to be largely considered, and where an invalid life can not be supported comfortably operation is more imperative. The operation of abdominal cervical hysterectomy as now carried out has a lower mortality in capable hands than is sometimes represented (4 per cent.), and may be compared with that of ovariotomy. The uterus can be safely amputated at any level, and the absence of recurrence of fibroid disease in the stump of the cervical portion of the uterus—in any case in the present series—is an argument in favor of cervical amputation as against panhysterectomy. It also leaves the pelvic floor intact. Myomectomy with preservation of the uterus as a whole is a conservative operation of much value, and should be practiced in the case of single and excessive tumors. In all cases where possible one or both ovaries should be left in the operation of hysterectomy for fibroid disease. The benefits are shown in a more complete convalescence and the modified character of the artificial menopause.

20. **A New Film Dressing for Wounds.**—Beale remarks that if we were to practice aseptic surgery and treat all wounds so as to give them the benefits of light and air it would be of great advantage. The next best thing would be hermetic sealing of a wound with some material which is aseptic and upon which we can apply as much pressure as necessary. If such substance were transparent he thinks it would be an ideal dressing. He says that within the last twelve months he has been using a thin film of substance called "velvril," one of the cellulose derivatives, which seems to be exceedingly satisfactory in many respects. It is easily applied and easily taken away, and yet is capable of causing hermetic sealing of the wound. He thinks that it will supersede protective (oil-silk), thin mackintosh and gum-elastic in surgical practice. It is practically indestructible and constant in composition at all ordinary temperatures. It is also used in solution, which is a valuable addition to its utility.

22. The **Pneumococcus.**—Sinigar reports an epidemic occurring in the Leavesden asylum, which seemed to show clinical evidence of variability in the virulence of the pneumococcus. During the height of the epidemic the fatality was very large among those attacked, while later, though the pneumococcus was numerous, the epidemic subsided. He thinks they were dealing with a pneumococcus which was at first of low vitality, then gradually increasing in severity, causing a more protracted illness, with occasional bronchial symptoms, and culminating in a case of lobar pneumonia in a nurse. At the time the female patients were taken with it its virulence was such that pulmonary symptoms were again in evidence. Short vague illnesses were few. Still the pulmonary signs were only those of patchy consolidation. When the utmost virulence was reached most of the cases were true lobar pneumonias, with a high mortality. Altogether 13 nurses, 17 male attendants and 43 female patients were attacked; the number of male patients attacked was not recorded. The pneumococcus, therefore, he thinks, may be changed from being a harmless resident of the mouth and nose to a virulent pathogenic organism. This last condition may be started up from the former.

The Practitioner, London.

January.

23 *The Mimicry of Gastric Troubles by Spinal Disease. Frederick Treves.
24 A Note on Salicylate of Quinin. John W. Moore.
25 *The Rôle of Percussion in the Diagnosis of Early Pulmonary Tuberculosis. R. W. Philip.
26 On Certain Diseases of the Cornea Met with in Children. C. Devereux Marshall.
27 Stammering, and Its Treatment by the General Practitioner. Hamilton G. Langwill.
28 A Case of Gastric Dilatation and Tetany; Recovery. W. E. C. Dickson.
29 A Case of Spontaneous Rupture of a Bicornuate Uterus During Pregnancy. A. Donald and W. K. Walls.
30 Some Recent Work on Surgical Affections of Joints. Albert Carless.
31 Diseases of the Upper Air-Passages. St. Clair Thomson.
32 A Brief History of Cremation in England. Henry Thompson.
33 The Relationship between Voluntary Agencies and Sanitary Authorities in Public Health Work: Two Illustrations. George Newman.

23. **The Mimicry of Gastric Troubles.**—Treves reports several cases where the symptoms strongly indicated gastric troubles, and yet there was no gastric disorder. In one of the cases there was the deformity of old Pott's disease, and probably a slight recrudescence and rest in bed for a considerable period relieved the symptoms. Another one turned out to be one of sarcoma in the dorsal region of the spine. The moral to be derived, he says, is that suspicion may be aroused as to the genuineness of the gastric trouble when the pain is the all-predominating symptom, when it is intense and persisting, and when vomiting is at the same time either absent or insignificant.

25. **Tuberculosis.**—Philip calls attention to the significance of the supraclavicular triangle in relation to early changes in the lungs and the best line of percussion for the determination of slight degrees of apical involvement, and lastly the value of what he terms "tidal percussion." The normal upper limit of the lung resonance, he claims, reaches one and a half to two inches above the clavicle, and he gives illustrations. The best line of percussion for a slight obstruction of the apical involvement is described by him as follows: The pleximeter finger of the left hand is placed across the apex of the lung from back to front, approximately in a plane at right angles to the vertical diameter of the lung. Percussion is practiced with the middle finger of the right hand in a direction at right angles to the pleximeter. The percussion strokes should be firm and sharp, but not too strong. The finger should be laid a little above the clavicle, one and a half inches or more. What he calls "tidal percussion" is the practice of percussion more particularly at the apices, alternated during expiration or easy respiration and during full inspiration, which is quite markedly different in the healthy subject and in conditions of slight involvement. The value of "tidal resonance" is also remarked in observation of the course of the disease, and if it becomes arrested considerable improvement in tidal resonance is frequently to be noticed, and this return is a most satisfactory indication.

Australasian Medical Gazette, Sydney.

December 20, 1902.

34 Notes on Pylorectomy for Cancer. A. MacCormack.
35 The Blood in Enteric Fever. Sydney Jamieson and H. Skipton Stacy.
36 Some Sequelæ of Syphilitic Infection. R. Humphrey Marten.
37 A Series of Nine Cases of Hysterectomy. J. L. Beeston.
38 A Case of Beri-beri. W. F. Hayward.
39 A Case of Lichen Spinulosus (Devergie). F. A. Bennet.
40 Treatment of Tropical Dysentery. Fred Goldsmith.
41 The Cause of Pulmonary Emphysema. W. F. Litchfield.
42 The Advantages of Inoculation with Professor Haffkine's Plague Prophylactic. R. W. Hornabrook.
43 Profuse Hematuria from a Slightly Movable Kidney. R. Earle Newton.

Journal of Tropical Medicine, London.

January 1.

44 A Preliminary Note on the Presence of Living Adult Bilharzia Worms in Bilharzial Papillomata and in Bilharzial Fibrous Tissue. Frank C. Madden.
45 Case of Leprosy at Wei-hai-wei, Shantung Province, China. V. Gunson Thorpe.
46 New Observations on the Larvæ of Anopheles and Culex in the Winter. Bruno Galli-Valerio and G. Rochaz.

Annales des Mal. des Org. Gen.-Urin., Paris.

47 (XX, 13-14.) Des conditions de l'intervention dans la chirurgie urinaire. Guyon.
48 Contribution à l'étude de la hernie inguinale des organes génitaux. E. Legrain.
49 *Contribution à l'anatomie path. de la tuberculose de l'appareil (apparatus) urinaire. M. Hallé and B. Motz.

49. Tuberculosis of Urinary Apparatus.—This comprehensive work reviews the experience at the great Necker Hospital and reports in detail the clinical and laboratory data obtained. It is continued into the volume for 1903.

Annales de l'Institut Pasteur, Paris.

50 (XVI, 12.) Recherches sur la putrefaction de la viande de boucherie (meat). H. Tissier and Martelly.
51 *Contribution à l'étude des lésions des ganglions nerveux périphériques dans les maladies infectieuses. O. Goebel.
52 *Etudes biologiques sur la Vieillesse (growing old). E. Metchnikoff.
53 *De l'immunité active contre la peste, le cholera et l'infection typhique. Besredka.
54 Recherches experimentelles sur le charbon (anthrax) symptomatique. E. Leclainche.
55 Observations sur les anopheles de la banlieue de Paris. E. Sergent.
56 Nouveau broyeur (grinder) pour la preparation de la pulpe d'organes. Latapié.

51. The Ganglia in Infectious Diseases.—In 1900 Van Gehuchten discovered certain lesions in the peripheral nervous ganglia of animals dying from rabies, and accepted them as a means of differentiating the disease. Attempts to reproduce the lesions in animals were undertaken by Goebel, but failed. He has, however, discovered the same lesions in the ganglia of the pneumogastric in various chronic infectious diseases, in syphilis and tuberculosis in particular. The lesion consists in the disappearance of certain of the nerve cells in the center of the ganglion and their substitution by small round cells. These cells result from the proliferation of the elements of the endothelial capsule entailing the destruction of the nerve cells. The lesion was as pronounced in one case of syphilis, in particular, as has ever been observed in case of rabies. Goebel explains it as the result of the phagocytic activity of the endothelial cells exerted against the nerve cell when the latter is suffering under the influence of some toxin and thus its normal resisting balance disturbed. It is not specific for any one disease; Crocq noted it in a case of true croup. It is of the same nature as the histologic alterations observed in the intoxication of tetanus and botulinic intoxication.

52. Biologic Study of Process of Growing Old.—We remember Metchnikoff's announcement in 1901, that the blanching of the hair is the work of certain ameboid cells, pigmentophages or chromophages. These elements become stimulated to action by the influence of some yet unknown cause and at a certain moment commence to "swallow" the pigment granules in the hairs and deport them into the skin or away from the organism. Research in this line is rendered difficult by the fact that animals are short-lived and the process of growing old in a dog or horse, for instance, can not be compared with that in man, as their life cycle is complete in twenty-five years at farthest. Parrots live much longer and Metchnikoff has been studying some whose captivity is known to have extended over eighty years. Two were of the family of *Chrysotis amazonica*. One of these was a male, apparently healthy, sexual appetite well preserved, coloring of plumage brilliant, known to be over 70. In another the plumage was brilliant but scanty. The organs showed no lesions, but the central nervous system was the seat of an intense phagocytosis. The nerve cells were surrounded by neuronophages. The latter did not seem to "swallow" the nerve cells, but merely to suck out their contents. He observed a similar nerve cell destruction in a parroquet which died at 20, not from old age but probably from some food intoxication. In the aged parrot it was evidently the result of senile degeneration which may likewise be considered the consequence of a chronic intoxication. The results of this research on parrots confirm those obtained in mammals.

53. Improved Vaccination Against Plague, Cholera and Typhoid Fever.—Besredka proclaims that he has produced a vaccine which combines the advantages of serum treatment and Haffkine's method, and yet is free from either local or general reaction. The immunity conferred commences in twenty-four hours for cholera and typhoid fever and in forty-eight for the plague, while it lasts for five and one-half months at least, and possibly much longer. An emulsion is made from microbes scraped from the surface of a forty-eight-hour gelose culture, and heated on the water bath to 60 C. for an hour to kill the microbes. It is then poured into a vessel containing antiplague serum. The bacilli become agglutinated and fall to the bottom in twelve hours. The supernatant fluid is decanted and the clumped bacilli are thoroughly rinsed and then mixed with "physiologic water." The resulting emulsion is the vaccine to be injected. Cholera and typhoid vaccine are made in the same way except that the anti-serum is added before the microbes are heated. The entire process is complete in a day. The animals injected with the vaccines elaborate specific antibodies. The vaccines retain their immunizing properties a long time. By Haffkine's method the immunization obtained is durable but does not commence until the eighth to twelfth day, while the immunization obtained with prepared serum is rapid and harmless, but vanishes by the eighth to the fifteenth day.

Revue de Gynecologie, Paris.

57 L'hysterectomie dans le traitement de l'infection puerpérale. H. Fehling.
58 Contribution à l'étude de la tuberculose génitale chez la femme (in women). J. A. Amann.
59 La tuberculose génitale. J. L. Faure.
60 Ibid. A. Martin.
61 Ibid. J. Veit.
62 L'anatomie de l'utérus des quadrupèdes demontre la necessité de la menstruation chez les bipèdes. A. W. Johnstone (Cincinnati).
63 L'age de la première menstruation au pole et à l'équateur. G. J. Engelmann (Boston).
64 Discussion de la Tuberculose Génitale au Congrès de Gynecologie.

Semaine Medicale, Paris.

65 (XXII, 50.) *Chirurgie des artères; ses applications à quelques lésions de l'artère fémorale. M. Jaboulay.
66 (No. 51.) *Le rôle des substances solubles dans la transmission des tares (taints) pathologiques des ascendants. Charrin.
67 (No. 52) Nursling Consultations and "Drop of Milk" Societies. A. L. Peyroux.—Consultations de nourrissons et Gouttes de Lait.
68 (No. 53.) Sur l'acne chlorique. A. Jaquet.
69 L'air et le spray.

65. Surgery of the Arteries.—Jaboulay reports the case of a healthy young butcher who accidentally cut the femoral artery just above the thigh. As the arteries were in such good condition Jaboulay treated the case by tying the femoral artery above and below the wound and also a collateral near by. There was no general reaction, and after six days the only trace of the intervention was the absence of the pulse at the usual points in the leg. The elastic and supple tissues promptly adapted themselves to the new arrangement. In another patient, a man of 47, with alcoholic antecedents, intermittent claudication and pain in the right leg were the early signs of defective circulation which progressed to gangrene of the limb requiring amputation first at the knee and then at the hip. The same symptoms commenced to develop in the other leg, and he was treated by making an anastomosis between the femoral artery and vein, which has been done twice by A. San Martin of Madrid, as he published last year. Jaboulay performed the operation as in an intestinal anastomosis, but was obliged to apply a central ligature on each vessel while suturing. This ligature evidently had an injurious effect as the circulation was not re-established as hoped, and the local temperature progressively declined. The condition was evidently worse than before. The patient refused further intervention, but it might have been possible to improve matters by severing the external iliac and implanting it in the corresponding portion of the adjacent vein, with an end-to-end suture. Jaboulay's assistant, Carrel, has successfully anastomosed the carotid artery and jugular vein in dogs, and Jaboulay thinks that this operation may yet prove of service in cases of insufficient arterial irrigation of the brain from thrombosis or congenital defective development. Softening of the brain, ischemia and microcephalic idiocy should be the first to reap the advantage of this operation, which borrows from the veins the route for the transportation of oxygenated blood. We know that arterio-venous aneurysms of the common carotid do not entail cerebral dis-

turbances, and we also know that venous stasis favors the development of a limb. An Esmarch bandage applied in a way to hinder only the return of the venous blood, leads in time to the hypertrophy of the member. It is, therefore, possible that an afflux of arterial blood in the veins of the neck and brain might arouse or augment the vitality of the latter. There need be no fear of venous stasis in the hemisphere corresponding to the anastomosis, as the communications between the veins of the two hemispheres and the extracranial veins are amply developed and ensure the return of the venous blood. We also have learned that ligature of the jugular vein does not entail edema of the brain nor any cerebral troubles. The first results of experimental research in this new field have been very encouraging.

66. Role of **Soluble Substances in Transmission of Pathologic Taints of the Progenitors.**—This important article is reviewed editorially in this issue.

Archiv f. die gesammte Physiologie, Bonn.

70 (XCIII, 5-6.) Vorschriften zur Ausführung (technic) einer quantitativen Glykogen-Analyse. E. Pflüger.
71 Studien über den Tetanus. Ueber die Abhängigkeit des Tetanus-Verlaufs von der Reiz-Frequenz bei maximaler indirecter Reizung. F. B. Hofmann.
72 Das Blut im Hoch-Gebirge. H. van Voornveld.
73 Weitere Untersuchungen über die entgiftenden (deintoxicating) Ionen-Wirkungen und die Rolle der Werthigkeit der Kationen bei diesen Vorgängen. J. Loeb and W. J. Gies.
74 Ueber die Ausnützung (utilization) des Glycerins im Körper und seine Bestimmung im Harn (determination in urine). H. Leo.

Archiv f. Verdauungskrankheiten, Berlin.

75 (VIII, 6.) Ueber die Pepsin-Bestimmung (determination) nach Mette und die Notwendigkeit ihrer Modification für klinische Zwecke. E. Nirenstein and A. Schiff (Nothnagel's clinic).
76 Pepsin-Bestimmung nach modernen Methoden und relativ digestive Insufficienz. F. A. R. Jung (Washington, D. C.).
77 *Die innere Behandlung der Gallensteinkrankheit (biliary lithiasis). L. v. Aldor (Carlsbad).
78 Ein Spul-Wurm im Gallenausführgang (bile duct) unter dem Bilde der Leber-Kolik. W. N. Clemm.
79 Extent of Albumin-Digesting Power of Stomach Contents. R. Schorlemmer.—Grösse der eiweissverdauenden Kraft, etc.
80 Ibid. A. Hammerschlag.

77. Internal **Treatment of Biliary Lithiasis.**—Aldor energetically condemns the usual method of watering-place treatment of gallstones, drinking the water and taking long walks, etc. He emphasizes the necessity of recognizing that the trouble is of infectious nature and that the resulting inflammation requires absolute rest to favor its healing, which is the essence of the cure. The behavior of the stones is a secondary matter. He orders his patient to stay in bed and has cataplasms as hot as he can bear applied to the region of the gallbladder from 7 to 12 a. m. and from 2 to 7 p. m. Every two hours the patient must drink from 100 to 200 c.c. of Carlsbad "Sprudel" at 50 to 55 C., thus ingesting in the course of the day 700 c.c. to 1.5 quarts, beginning at 7 a. m. and continuing until 7 p. m. He must have a mixed diet, as abundant as possible, with nothing tabooed except highly-seasoned and irritating dishes. This treatment must be maintained until the disappearance of the last trace of pain and sensitiveness to pressure. A complete cure is generally attained in four or five weeks and only rarely was it necessary to continue it to the eighth or tenth week; still rarer the cases in which an operation proved necessary after all. A course of Carlsbad waters does not necessarily mean at Carlsbad, but it must be carried out along these lines to be successful. He does not attribute any magic stone-dissolving or stone-expelling virtue to the waters but merely counts on their long-established efficacy in subduing inflammation in the biliary passages.

Berliner klin. Wochenschrift.

81 (XXXIX, 51.) Ueber Chorea elektrica. L. Bruns.
82 Zur Kenntniss der Teratome; blasenmolenartige Wucherung (vesicular proliferation) in einer Dermoid-Cyste des Eierstocks (ovary). L. Pick.
83 Untersuchungen über die Grösse der Eiweissverdauenden Kraft des Mageninhalts (power of gastric digestion of albumin). R. Schorlemmer (Boas' clinic).
84 Ueber ein neues Esophagoscope. M. Einhorn.
85 Zwei Fälle von Strammonium-Intoxication. Knaut.
86 (No. 52.) Echte Nanosomie (true dwarf growth) mit Demonstration eines Falles. D. v. Hansemann.
87 Results of Staining Unfixed Nerve Cells. A. M. Luzzatto.—Ueber Ergebnisse der Nervenzellenfärbung im unfixirten Zustande.
88 *Beitrag zur Chirurgie in warmen Ländern. H. Ziemann.
89 Klin. Beitrag zur Alopecia areata. E. Richter.
90 Ueber Adrenalinum Chlorid. mit Chloretin (Chloroform und Aceton) und die Anwendung in der rhinol. Praxis. Balza.
91 Anesthesin. A. Kennel.

88. **Surgery in the Tropics.**—Ziemann reports an instance of the remarkable way in which wounds heal at Cameroon. The patient was a primipara of 36, the wife of a missionary in a remote hamlet, tended only by an obstetric nurse, also a missionary. When Cesarean section became necessary as a last resort, the midwife shrank from attempting a longitudinal incision and cut across, 2 cm. below the umbilicus, making a transverse incision 16 cm. long, without chloroform or proper instruments, but with careful asepsis. A healthy boy was delivered and the mother made a smooth recovery. No attempt was made to suture the uterus.

Centralblatt f. Bakteriologie, Jena.

92 (XXXII, 6.) Beitrag zur Kenntniss der anaeroben Bakterien des Menschen. A. Weichselbaum.
93 Ist die Schlafkrankheit (sleeping disease) der Neger eine Intoxications- oder Infektions-Krankheit? H. Ziemann.
94 Zur Frage der Differenzierung der Diphtherie- und Pseudo-Diphtherie-Bacilli. J. Bronstein and G. N. Grünblatt.
95 Ueber die Bakterien-Flora der Nasensini und des Mittelohres (middle-ear). U. Calamida and E. Bertarelli.
96 Ueber den Alexin-Gehalt menschlicher Blut-Sera. R. Trommsdorff.
97 Die Leucocyten als Complement-Bildner (producers) bei der Cholera-Infection. L. Ascher.
98 Zur Frage der Precipitations-Vorgänge (processes). H. Halban and K. Landsteiner.
99 Ueber Inactivierungs-Versuche (attempts) mit Precipitinen. L. Michaelis.
100 Zur Schnell- (rapid) Diagnose der Typhus Bacillus. G. Jochmann. (Tests of Weil's culture medium.)
101 Ueber eine neue regulirbaren Vorrichtung (adjustable contrivance) für den heizbaren Objekt-Tisch (table). R. Kraus.
102 Ueber einen Apparat zur bact. Wasserentnahme (removal of water). R. Kraus.
103 Ueber Versuche mit bact. Lab und Trypsin. A. Loeb.
104 Beitrag zum bakt. Nachweise von Trinkwasserverunreinigungen (impurities in drinking water) anlässlich infectiösen Erkrankungen. Mensburger and Rambousek.

Deutsches Archiv f. klin. Medicin, Leipsic.

105 (LXXIII, Kussmaul Festschrift). Die literarischen Arbeiten Adolf Kussmauls. W. Fleiner.
106 Klin. Erfahrungen (experiences) über Behandlung der Perityphlitis. Ch. Bäumler.
107 Zur Diagnostik des Sanduhrmagens (hourglass stomach). C. A. Ewald.
108 Bemerkungen über Gallen-Stein-Kolik. C. Gehrhardt.
109 Flow of Gastric Juice and Spasmodic Contraction in Case of Chronic Gastric Ulcer. J. Kaufmann.—Zur Frage des Magensaftflusses und der Krampfzustände bei chron. Magengeschwür.
110 Ueber 3 Dysenterie-Epidemien im Barmen, 1899-1901. H. Krige.
111 Die Wirkung der Kohlensäure (carbonic acid) auf die Magenverdauung (gastric digestion). F. Penzoldt.
112 *Ueber spindelförmige Erweiterung (dilatation) des Esophagus im untersten Abschnitt (in lowest segment). O. Zusch.
113 Ueber die Periphere Neuritis als häufigste Ursache (most frequent cause) der tabischen Larynx-Erlähmungen (paralysis). A. Cahn.
114 Geschichte eines Patienten dem operativ den ganzen Schläfenlappen entfernt war (history of patient after ablation of entire temporal lobe). L. Edinger.
115 Klinische Plauderei (chats) aus den letzten 40 Jahren (years). W. Erb.
116 Gleichseitige Lähmung des Hals- (uncrossed paralysis of cervical) Sympathicus bei unilateraler apoplectiformer Bulbar-Paralyse. J. Hoffmann.
117 Ueber das Vorkommen von Lichtstarre (no reaction to light) der Pupillen bei crouposer Pneumonie. F. Schultze.
118 Ueber die Beziehungen zwischen (relations between) Innen-Form und Aussen-Form des Schädels (skull). G. Schwalbe.
119 Fall von Neuritis der Nn. splanchnici. H. Stilling.
120 Zur Entwicklungsgeschichte (history of development) des Uterus. H. Bayer.
121 Eine seltene Complication des Puerperal-Febers. E. Dietz.
122 Beitrag zur Behandlung des Puerperal-Febers mit der Credé'schen Silber Salbe. Huffell.
123 Beitrag zur Casuistik und Diagnostik der interstitiellen Gravidität. M. Muret.
124 Ueber das Verhältniss der käsigen Pneumonie zum miliären Lungen-Tuberculose. P. Baumgarten.
125 Ueber Bronchiolitis fibrosa obliterans nebst Bemerkungen über Lungen-Hyperemie und indurirende Pneumonie. A. Fraenkel.
126 *Ueber die Bedeutung (importance) der Venendruckmessung (measurement of venous pressure) bei der dietetisch-physisch. Behandlung der Kreislaufstörungen (disturbances in circulation). A. Frey.
127 *Zur Phosphor-Therapie bei Osteomalacie. His.
128 Die Resultate der Diphtherie-Behandlung im Mulhauser Bürger-Hospital vor und nach der Anwendung des Heilserums. Jaeger.
129 Ueber lymphagoge Stoffe (substances) im Blut-Serum Nierenkranker (in kidney disease). A. Kast.
130 Mittellungen aus den Grenzgebieten der Ohrenheilkunde (borderland of Otology). O. Korner.

131 Das sogenannte entzündliche (inflammatory) Glaucom, eine Neurose. L. Laqueur.
132 Ueber Alkalinurie. H. Leo.
133 *Die Behandlung des Scarlachs mit Reconvalescenten-Serum. E. v. Leyden.
134 Beobachtungen aus dem Landesbade in Baden Baden. F. Neumann.
135 Zur Lehre von der Pathogeneität des Bacillus pyocyaneus. O. Soltman.
136 Der Verdünnungsgrad (degree of dilution) der Lösungen (of solutions) und der Einfluss desselben auf letalen und toxischen Effect. Stokvis.
137 Einige Bemerkungen über das Wesen und die Diagnose der sog. nervosen Dyspepsie. A. Strümpell.

112. **Spindle-Shaped Dilatation of Lower Portion of Esophagus.**—Zusch has observed 11 cases of this affection and reviews 13 in the literature. He treats it by emptying the sac and rinsing the esophagus every morning before breakfast, feeding exclusively through a wide tube three times a day. He gradually intersperses between these meals a small amount of soft foods from time to time until able to abandon the tube feeding altogether. It is necessary to introduce the tube before bedtime so that no food may stagnate in the sac during the night. In rinsing the esophagus the amount of water used must be small in order not to distend the sac. Frequent sipping of some alkaline water during the day is the best means of alleviating catarrhal inflammation, thus neutralizing any acids that may form while keeping the esophagus clean. An important factor in treatment is lavage of the stomach immediately after rinsing the esophagus. Laxatives irritate the sac and should be avoided. In one case the feeding through a tube was kept up for six months, and the sac was reduced from a capacity of 220 to 50 c.c. Systematic perseverance is the main factor in curing the condition and the patients must learn to introduce the tube themselves. It usually stops as it reaches the cardia, but by swallowing and slight manual coaxing, it slides into the stomach. In case of a tendency to spasmodic contraction the patient should eat solids first and his soup last. Another important precaution is to take considerable butter at supper or a teaspoonful of olive oil. None of his patients would consent to an operation, but it should be borne prominently in mind. In seven typical cases the diagnosis was based on the characteristic anamnesis and subjective sensations, on the evidence of a cavity above the stomach whose contents differed both physically and chemically from those of the stomach, on the tapering of the cavity at top and bottom, and on the exclusion of cardiac stenosis. The tube could always be passed readily into the stomach.

126. **Determination of Venous Pressure in Heart Disease.**—Frey emphasizes the necessity of surveillance over the circulation as a means of determining proper dosage for the diet, for exercise and carbonated baths. The pressure should be noted before and after each single procedure. The measurement of the venous pressure will be found especially instructive in this respect. It not only enables us to watch the progress of the case, but, correctly interpreted, it may protect the patient and the physician from the most painful surprises.

127. **Phosphorus in Osteomalacia.**—His administered an oil solution of phosphorus in a case distinguished by numerous spontaneous fractures. The lime eliminated by the patient was calculated before, during and after the phosphorus treatment, and showed that there was a surplus eliminated of .07 to .17 gm. of lime a day ordinarily, but under the influence of the phosphorus there was retention of .301 gm. a day.

133. **Serum from Convalescents in Treating Scarlet Fever.**—The disease was apparently abbreviated to a notable extent in the 16 cases of scarlet fever which Von Leyden treated with 10 to 20 c.c. of serum taken from other patients convalescing from the disease.

Deutsche Med. Wochenschrift, Berlin and Leipsic.

138 (XXVIII, 51.) Zur Kenntniss der congenitalen Larynx-Diaphragmas. P. Fraenckel.
139 Ueber ein für menschliche Placenta spezifisches Serum. W. Liepmann.
140 Fall von Myasthenia gravis pseudo-paralytica mit akutem Verlauf. Dorendorf.
141 Zur Casuistik der retroperitonealen Cysten. R. Schorlemmer.
142 Oxyuris vermicularis als Ursache akuter Appendicitis. Rammstadt.
143 Ueber Coxitis rheumatica. R. Friedländer.
144 Kneippiana. Spener.
145 Ueber einen neuen Elektromagneten zur Extraktion von magnetischen Fremdkörpern aus Augen (foreign bodies in eyes). H. Schenkel (Berne).
146 Zur Bottini'schen Operation. A. Freudenberg.
147 Ibid. S. Jacoby.
148 (No. 52.) Ueber den Einfluss von Temperatur und Jahreszeit auf den Ausbruch (influence of season on outbreak) des akuten primären Glaukoma-Anfalles. Kurt Steindorff.
149 Ueber ein besonderes Verfahren bei Behandlung der Otitis media und die dabei hauptsächlich verwandten Medikamente. Ehrenfried.
150 *Tremor und Harn- (urine) Intoxication. A. Hock.
151 *Eine neue Operation zur Heilung der Ectopia testis congenita. M. Katzenstein.
152 *Weitere Beiträge zur Lehre von den Syphilis-Bacillen. Max Joseph and Piorkowski. (Commenced in No. 50.)
153 Paraffin Prothesis in Dentistry. J. Witzel.—Ueber die Verwendung des Paraffins in der Zahnheilkunde.
154 (XXIX, 1.) *Ueber die Herz- (heart) Hypertrophie bei Nieren-Krankheiten (renal affections). H. Senator.
155 *Beiträge zur Chirurgie des Harnleiters (ureters). J. Israel.
156 *Suit for Damages for Neglect to Suture Lacerated Perineum. Zweifel.—Fall von Strafverfolgung gegen ein Arzt wegen der Unterlassung einer Dammnaht.
157 *Ueber biologische Mehrleistung (extra work) des Organismus bei der künstlichen Ernährung von Säuglingen (artificial feeding) gegenüber der Ernährung mit Mutter-Milch. A. Wassermann.
158 Streptococci Found Regularly If Not Constantly in Mouth of Nurslings. J. Herzberg.—Sind in der Mundhöhle mit Ammenmilch ernährter Säuglinge Streptococcen vorhanden?
159 Fall von spontan geheilter Perforations-Peritonitis bei Ulcus Ventriculi. H. Spicker.
160 Curettement bei Abort oder nicht? Michelet.
161 Intoxication nach Genuss von Brenn-Nessel-Thee (nettle tea), der mit Stechapfelblättern (datura leaves) verunreinigt war. G. H. Sieveking.
162 Permanent Exposition for Welfare of Laborers. H. Albrecht.—Die ständige Ausstellung für Arbeiterwohlfahrt im Charlottenburg.
163 Mesotan. J. Ruhemann.
164 *Ueber die Behandlung des Lupus unter Anwendung luftverdünnter Räume (rarefied air). Meldola (Hamburg).

150. **Tremor and Urinary Intoxication.**—Partial retention of urine is frequently not recognized by the subject and yet it is liable to cause serious symptoms from autointoxication. Among the more frequent are disturbances in the digestive tract, severe constipation, rebellious diarrheas, uncontrollable vomiting, cured at one stroke by removal of the obstacle to free evacuation of urine. Other symptoms observed are migraine, singultus accompanying cystitis, psychoses, etc., and Pawinsky has reported 5 cases of severe "vesical asthma," as he calls it. In the case described by Hock an intense tremor of the entire body, very annoying and assumed to be senile tremor, vanished completely as measures were taken to secure the complete evacuation of urine.

151. **Operative Treatment of Ectopia Testis Congenita.**—The aim of Katzenstein's operation is to fasten the testicle in its normal position until the cord has stretched and the nourishment is fully assured. He accomplished this in a case in which the atrophic scrotum offered no firm support, by bringing the testicle down into place by means of forceps passed up through an incision at the bottom of the scrotum. A pedunculated skin flap was then cut in the inner aspect of the thigh in contact with the scrotum and sutured to the newly brought down testicle, the raw side in. This not only holds the testicle firmly in its normal position but ensures abundant nourishment.

152. **Syphilis Bacillus.**—Joseph and Piorkowski announce that they have found a special bacillus in the semen of 39 syphilitics. They never found it in subjects who no longer exhibited any manifestations of the syphilis. Fifteen such cases were examined. In one case symptoms of syphilis continued to recur, notwithstanding energetic and repeated mercurial treatment. When examined for the bacilli a number of years after the primary infection they were found, but not so numerous nor so vigorous as in the others. In another case in which manifestations of the syphilis undoubtedly existed but in which wife and children had not been infected, the sperma and also the secretions of an ulcerative syphilid were constantly sterile. In 24 cases they were able to cultivate the bacillus from the secretions of ulcera dura, but never from ulcera mollia or other non-syphilitic lesions. Mercurial treatment banishes the bacillus from the secretions even years after the primary infection, and on the other hand it could frequently be found two months to several years after infection in the absence of specific treatment. If experience confirms these findings it may be possible to determine by the presence or absence of these

bacilli whether the subject should be allowed to marry or not. The bacilli differ from others in several particulars. They are non-motile, not acid proof, and grow on blood serum in isolated colonies like drops of dew. They form indol but not gas and develop within twenty-four to forty-eight hours, taking the Gram, the poles staining. Inoculation of animals has been negative or dubious.

154. **Hypertrophy of Heart in Kidney Disease.**—Senator cites evidence which establishes the tendency of the heart to hypertrophy in case of kidney disease, and its predominance in the left ventricle. He then suggests as an explanation of this fact that the nitrogenized extractives which are retained in the body by the deficient elimination through the kidneys, alter the composition of the blood and this in turn has an injurious action on the entire vascular system. In acute nephritis this retention is most pronounced, and the vessels suffer intensely from it; their nourishment is impaired and they become more permeable, allowing the passage of fluid through their walls and consequent dropsical effusions. This tendency to dropsy can be regarded as a compensatory phenomenon, an effort to free the blood from the extractives. They are found in the effusions in the same proportions as in the blood. As the kidneys recover from the acute nephritis conditions in the vascular system return to normal and the affection does not last long enough for the heart to be permanently affected. In subchronic nephritis the conditions are the same, except that they occur more gradually, and the vascular system feels the effect longer. The walls of the vessels become contracted, the muscularis thicker and shows the effect of inflammatory induration. This is especially liable to occur in the systemic circulation, which is further injured by direct pressure of dropsical effusions on certain vessels. This degeneration of the vessel walls entails exaggerated work on the left ventricle, which becomes hypertrophied in consequence. In chronic interstitial nephritis the morbid process in the kidney develops so gradually that the walls of the vessels are not injured to the point of becoming permeable and the extractives accumulate in larger and larger amounts in the blood. This slow, but ever-increasing irritation for the vessel walls causes their contraction and thickening in the systemic circulation and compels the entire heart to become hypertrophied while the left ventricle feels the effect more than the rest. It is possible that the noxious influence responsible for the kidney affection may also act simultaneously on the vascular system, as in chronic lead poisoning, arteriosclerosis, etc. In arteriosclerosis the left ventricle is peculiarly liable to suffer in case of sclerosis of the splanchnic arteries.

155. **Surgery of the Ureter.**—Israel had a patient with a solitary hydronephrotic kidney with one ureter completely and the other partially obstructed. The urine escaped through a fistula, and attempts to close it caused distension of the kidney owing to the imperfect drainage. He made a suprapubic opening into the bladder and inserted a rubber tube drain with broad lip in each of the fistulas, connecting the two drains with a rubber tube. The urine thus flows out of the kidney through the renal fistula and into the bladder through the suprapubic fistula, whence it is normally voided. He gives a cut of the connecting tube which has a special valve arrangement. The contrivance is satisfactory and the patient is dry and continent. He also describes two cases of implantation of the ureter in the bladder by an extraperitoneal operation. One patient operated on in 1898 has been permanently cured of all disturbance and he has since had another successful case.

156. **Suture of Perineum.**—Zweifel remarks that he has never witnessed a case of spontaneous healing even after a laceration of the first and second degree. The coating over of the outer skin is not actual healing when there is a gap beneath. In 25 cases of laceration of the third degree observed at the Leipsic Clinic, 20 different physicians had sutured the wound in 20 different cases, and the result had been a failure. In the Maternity 23 cases had occurred and suture was unsuccessful in 6, although the conditions in the hospital are incomparably more favorable than with a physician alone in a private house. Lacerations of the third degree occurred once in each 500 births at the clinic; lacerations of the other degrees thirty-seven times. The successful results of suture of those of the first and second degrees show that physicians are able to secure primary union. In the damage suit mentioned in the title of the communication, Zweifel testified to the above effect and the defendant was acquitted, particularly as he had notified a specialist that the patient needed the attention of an expert. Zweifel attributes the lack of success in most cases to the conditions at the first defecation. When the bowels are filled with scybalæ, accumulated by the frequently morbidly exaggerated appetite of the pregnant woman, the first evacuation is liable to burst the suture of the laceration and render the condition worse than at first. For this reason he advises administering magnesia or something of the kind to soften the fecal masses, and to clear out the lower bowel by introducing a large tube and allowing water to flow in and be constantly siphoned out again. The food should be exclusively fluid. The first step in the suture should be to insert a thread with long ends at each end of each side of the tear. This enables the lips of the wound to be coaptated. He then passes a row of sunken interrupted sutures through the recto-vaginal wall, from within outward, avoiding passing through the mucosa of the rectum. The vaginal portion of the laceration is next sutured in the same way, commencing at the inner angle. The central portion of the laceration is then sutured in the depths with a continuous catgut suture, not to leave any dead space, and the skin sutured above. He recommends catgut for the vaginal sutures and the buried running suture, but for the outer one, silkworm gut, silver wire or celluloid thread. Ordinary silk should not be used at all. Cocain should be injected as a preliminary measure, about four syringefuls, under the skin of the perineum four minutes before commencing to suture, which should not be delayed more than twenty-four hours after delivery. The intervention has thus six steps. 1, the cocain; 2, the "bridle" threads at the corners of the wound; 3, interrupted sutures coaptating the mucosa of the rectum without passing through it; 4, a row of sutures uniting the vaginal portion of the tear; 5, a continuous deep buried suture uniting the depths of the wound, and 6, the silkworm-gut suture of the perineum. Zweifel admits that he does not follow this technic himself in all particulars, but has thus simplified it for the general practitioner. The various steps are illustrated and he urges that no one should allow a laceration to go unoperated at the proper time.

157. **Biologic Extra Work in Artificial Infant Feeding.**—Wassermann, by means of the precipitation of albumin and other applications of the specific precipitation with prepared sera, has established that the albumin in cow's milk has to be elaborated by the infant organism before it can be assimilated like the albumin in human milk. This imposes on the infant organism as much of a task as if a workman, instead of being given steel with which to make a certain machine were given iron which he had to make into steel before he could commence on his task proper. He states that the nourishment of the infant by the mother's milk is merely a continuation and slight modification of the intrauterine nourishment of the fetus through the placenta. The essential albumin required is supplied in this form from the maternal organism, until the infant is old enough to dispense with it. The biologic extra work of the bottle baby is most excessive during the earliest weeks and months of its life. As lactation wanes, the bottle-fed and the breast baby approach the same plane.

164. **Treatment of Lupus Under a Vacuum.**—Meldola refers to the fact that absorption of fluids proceeds much more energetically in a vacuum, and states that he has applied this principle to the treatment of lupus with fine results. He uses the Gould apparatus, which produces a partial local vacuum while allowing the introduction of a fluid. He applied in this way a 50 to 70 per cent. solution of lactic acid with a vacuum over the part treated. Slight inflammation follows, but is transient, and no reaction occurs after the first application.

Deutsche Zeitschrift f. Chirurgie, Leipsic.

165 (LXIV, 4.) Ueber die primäre Sarkome des Sinus frontalis. A. Krögius (Helsingfors).

166 Hygroma colli cysticum congenitum. V. Schmieden.

167 Ueber Myositis ossificans traumatica mit Bildung von Lymph-Cysten. O. Wolter.
168 Untersuchungen über die als Parasiten gedeuteten Zelleinschlüsse (cell inclusions) im Carcinom. H. Nösske.
169 (Nos. 5-6.) Ueber Fremdkörper in den Luftwegen (foreign bodies in air-passages). Schlender. (Ten cases.)
170 Beitrag zur Behandlung der chron. Larynx-Stenose. N. Wolkowitsch (Kief).
171 4 seltene Fälle von abdominellen Cysten. M. Penkert.
172 Hernia inguinalis superficialis. R. Gobell.
173 Pes calcaneous traumaticus. A. Wittek.
174 *Eine Methode zur Sterilisierung und zur sterilen Aufhebung (preservation) von Catgut. M. Claudius.
175 Beitrag zur Lehre von den intraabdominellen Hernien. O. Funkenstein.
176 Die Teleangiektasien der Blase (bladder). A. Berliner.
177 Eine retrorectale teratoide Geschwulst (tumor) mit adenocarcinomatöser Degeneration. H. Graff.
178 Ueber die Leber-Entzündung nach Ruhr (inflammation of liver after dysentery). Kramm.
179 Fremdkörper der Zunge (foreign body in tongue) in Tumor-Form. M. Silbermak.
180 Ueber eine Hernia traumatica sacralis nebst Bemerkungen zur Mastdarm- (rectum) Plastik. A. Tietze.
181 Zur Casuistik der Hüftgelenkspfannenbrüche (fractures of acetabulum). R. Graessner.

174. **Method of Sterilizing Catgut.**—Claudius describes the method of sterilizing catgut in use at Bloch's Clinic in Copenhagen, with constantly-increasing satisfaction. Ordinary raw catgut is wound on a glass spool, two knotted threads to a spool, and placed in an aqueous solution of iodin 1 part, potassium iodid 1 part and 100 parts water. The potassium iodid is first dissolved in a small amount of water, and then the finely-pulverized iodin added and dissolved in the same, after which this concentrated solution is diluted to 1 per cent. The glass jar is labeled with the date and after eight days the catgut is ready to use and is kept indefinitely in the same jar and fluid. When wanted, a spool is removed to a dish containing a 3 per cent. solution of carbolic acid or any indifferent sterile fluid. It is left in this fluid for one and a half to two hours, no longer, to rinse off the superfluous iodin solution. The threads are then cut below the surface of the fluid, and any not needed is replaced in the iodin jar. The catgut acquires a peculiar consistency by this method of sterilization, plastic and elastic, like that of a fine copper wire, and it is easy to tie. The strength is increased by the carbolized rinsing while the length is not altered. Tests showed that all spores are killed long before the eight days have elapsed. He states that none of the qualities of the catgut are impaired by even as long as five months in the fluid as he has established again and again.

Muenchener Med. Wochenschrift, Munich.

182 (XLIX, 51.) Fall von cerebraler Kinderlähmung (acute spinal paralysis). R. Goldman.
183 Ueber die Septum-Perforation der Chrom-Arbeiter (workmen). J. Bamberger.
184 Agurin, ein neues Diureticum. A. Nusch.
185 Ueber Cancroin "Adamkiewicz." J. Decker.
186 Zur Behandlung der Gonorrhoe mit protargol-Gelatine. Benario.
187 Praktische Erfahrungen mit dem Roentgen-Instrumentarium System Dessauer. V. Gosen.
189 *Ueber parenchymatöse Nephritis bei Lues. M. Wagner. (Commenced in No. 50.)
190 (No. 52.) *Zur Kritik der Beziehungen (relations between) Angina tonsillaris und Appendicitis. H. Weber.
191 *Die Innervation der Verdauung (digestion). O. Cohnheim.
192 Ueber die Exstirpation des puerperal-septischen Uterus. R. Gradenwitz. (Commenced in No. 51.)
193 (L, 1.) Ueber die Extraktion von Kugeln (bullets) aus der Schädel-Höhle (cranial cavity). O. v. Angerer.
194 Ueber primäre Aktinomykose der Fusswurzelknochen (tarsal bones). O. Bollinger.
195 Drs. Geist and Deitz. G. Merkel.—Zwei Typen bayerischer Aerzte aus der Mitte des XIX Jahrhunderts.
196 *Die Tuberkulose des Sehnervenstammes (optic nerve). J. v. Michel.
197 *Dosage of Exercise. Penzoldt.—Ueber das Mass der Bewegung bei der Behandlung der Lungen-Tuberculose.
198 *Altes und Neues zur path. Anatomie des nomatösen Brandes (gangrene). H. v. Ranke.
199 *Ueber Narkosen mit dem Schleich'schen Gemisch. I. F. v. Winckel.

189. **Parenchymatous Nephritis in Syphilis.**—Wagner describes 3 and reviews 11 cases in the literature, in which there was an unmistakable direct connection between the syphilitic infection and the nephritis and no other cause for the latter could be ascertained. In differentiating the affection a concomitant gonorrhea must be excluded, likewise the ordinary causes of nephritis, or a preceding affection of the kidneys, which may have run a latent course and been roused to an exacerbation by energetic mercurial treatment. In the 14 cases referred to the syphilis was inherited in 4, and the others were all, with one exception, in the secondary stage of syphilis. The nephritis developed simultaneously with or shortly after the appearance of the first secondary symptoms, and this coincidence is one of the most important points in the differentiation. The symptoms and course are about the same as in an ordinary parenchymatous nephritis. Five cases terminated fatally, one from an intercurrent affection and 4 from the results of the nephritis. Recovery was complete in 8 cases, both from the nephritis and the syphilis, as has been determined by observation extending over a number of years. Even in these favorable cases the onset was severe, the albuminuria intense and the anasarca profuse. Symptoms of uremia were noted in three cases, but of brief duration. The nephritis, therefore, may commence stormily and may prove fatal or may terminate in complete recovery, notwithstanding a tempestuous onset. The pathologic anatomy does not differ from that ordinarily observed. Opinions differ in regard to the practicability of instituting specific treatment. Specialists in syphilis advocate it while the internists point out the dangers. Senator is one of those who recommend only potassium iodid and not mercury, as he has witnessed aggravations of the nephritis follow mercurial treatment as frequently as improvement. In the 14 cases reviewed, 3 received no mercury, and 2 of these patients died with symptoms of uremia. In the third case, as the nephritis did not improve under potassium iodid, Zittmann's decoction was then given and the patient recovered. All the other patients were treated with mercury combined with the iodid, and in only one instance was any injurious effect of the mercury noted. In this case inunctions were energetically applied in the beginning of the syphilis and in its recurrences with no evil effects on the kidneys, but after the nephritis developed, an attempt to repeat the inunctions aggravated the kidney affection and mercurial treatment had to be abandoned. In none of the other 8 cases were any symptoms of injury of the kidneys observed. On the contrary, the nephritis subsided completely and permanently. These facts that 3 died out of the 4 not receiving mercurial treatment, while 8 recovered out of the 10 who were given courses of mercury, amply justify specific treatment in syphilitic parenchymatous nephritis. The first stormy onset should be allowed to subside under the ordinary dietetic-hygienic treatment before instituting it, and the doses should be small at first, carefully supervised and interrupted at the first signs of injury to the kidneys. Curschmann and others warn explicitly against injecting the mercury—cautious inunctions are the only means of applying it.

190. **Connection Between Tonsillitis and Appendicitis.**—Weber assumes a causal connection between the tonsillitis and the appendicitis in three cases he describes, although as the patients recovered without an operation it was impossible to determine the identity of the germ causing the affection at the two points. Kretz and Schnitzler found the streptococcus in both tonsils and appendix in their cases, and Adrians the influenza bacillus. Weber agrees with Kretz that the most probable means of infection is the swallowing of germs from the process in the throat and their lodgment in the appendix. In his cases the appendicitis developed seven days after recovery from the acute tonsillitis in one case, during its course in another and in the third both affections were present when the patient was first seen.

191. **Pawlow's Research on Innervation of the Digestion.**—Cohnheim spent his vacation inspecting Pawlow's famous laboratory entirely devoted to research on the mechanism of digestion. It is a small building in the outskirts of St. Petersburg, lavishly endowed, and here also Nencki conducted his studies in physiologic chemistry. Pawlow's work is done exclusively on large dogs weighing from 25 to 30 kilos., 60 pounds and over. He has forty-three in the establishment, all lively and healthy, but each with one or more fistulæ of various kinds. The "psychic gastric juice" is secreted by dogs with a fistula into the stomach and another in the throat. When the stomach is mechanically stimulated through the gastric fistula there is no response in secretion, but after the animal is given a piece of meat the stomach commences to secrete. The dog eats, chews and swallows the meat but it falls out through the hole in the esophagus and he picks it up and eats it over and over

again. After 5.5 minutes have elapsed the gastric juice begins to stream out of the stomach fistula although no food has passed into the stomach. Four dogs thus produce six to eight quarts of gastric juice during the morning, each about 5 to 15 c.c. a minute. They generally cease eating in about twenty minutes, but one dog continued the entire forenoon to eat the same piece of meat over and over again. The gastric juice thus produced is in demand for therapeutic purposes. It contains .5 to .6 per cent. hydrochloric acid and is purer than any gastric juice hitherto attainable. The innervation of the stomach is studied in dogs which have had a second small stomach formed out of the fundus portion, completely separated from the rest except in its innervation. The gastric juice derived from this second stomach differs in amount and in its ferments with the kind of food eaten, which fact is also observed in the "psychic gastric juice" secretion. Since Pawlow's previous publications he has been conducting research on the secretion after an acute gastric catarrh has been induced by application of heat or cold. The mucosa in this case secretes an alkaline mucus instead of the acid gastric juice. After the catarrh has subsided a period of hypoacidity is followed by hyperacidity before normal conditions are restored. In some cases an irritable state ensued, in which the secretion increased and also ceased sooner than normally, an excess of gastric juice being secreted at first, but the total amount below the average. In some of the dogs the psychic secretion was normal, while the chemical was deficient. This demonstrated that the glands were normal while the "reception organ" of the stomach epithelium was affected. Pawlow's research on the pancreatic juice has not fully confirmed his previous announcements on the subject, but it has established that this juice does not contain trypsin as such but in the form of zymogen. This zymogen is transformed into trypsin by the substance in the intestinal juice which he calls enterokinase. This enterokinase is not a constant constituent of the intestinal juice, but is secreted only when the pancreatic juice enters the intestines, evidently a specific chemo-reflex. The fat-splitting ferment becomes active in the same way under the influence of the bile. The pancreatic juice always contains ptyalin and steapsin in this form, but the trypsin occurs in the form of zymogen only when the dogs are fed on bread, milk or potatoes, while on an all-meat diet it occurs as the complete ferment, and on a mixed diet sometimes as one and then as the other. The aim of gastric digestion is to provide the stimulus for the pancreatic secretion, which is the contact of the hydrochloric acid with the mucosa of the intestine. He is still at work on the problem whether this is a reflex or material phenomenon. In his studies on the bile he sutured the orifice of the bile duct with a ring of encircling intestine in the cutaneous wound and has thus been able to study the reflex connection between the intestine and biliary system. He was unable to discover any "psychic" secretion of bile, or any influence of the hydrochloric acid on this secretion. Two substances alone influence it, peptone and fat, as they enter the duodenum. The entrance of fat into the duodenum is the normal stimulus to the secretion of bile. He announced in his published works that the simultaneous ingestion of fat and albumin retarded the secretion of gastric juice. This fact has been confirmed by later research, but he assumed at first that the fat in contact with the gastric mucosa inhibited the secretion. He has since learned that the inhibition is a reflex phenomenon which occurs when the fat comes in contact with the mucosa of the duodenum. The motor function of the stomach is also affected in the same way. If water or a solution of salt, sugar or peptone be introduced into the duodenum through a fistula, and at the same time 200 c.c. of water be poured into the stomach, the latter empties itself in less than fifteen minutes. But if, instead, an acid or fat be introduced into the duodenum, the chemo-reflex closes the pylorus and the water is still found in the stomach two hours later. The experiments also prove that exact experimental physiologic psychology can be studied on dogs. In research on the secretion of saliva, for instance, Pawlow found that dogs with a saliva fistula secreted thin saliva when such was needed to dilute acid or irritating substances taken in the mouth, while they secreted a mucilaginous saliva when needed to lubricate solid pieces of food. If hydrochloric acid was poured into the mouth of a dog, large amounts of the thin saliva were secreted at once. If the acid were stained black, the animal soon learned to recognize it, and on the mere sight of any black fluid the dog commenced to secrete the thin saliva in abundance. Thick saliva is secreted when the dog is given or even shown dry bread. As dogs have the habit of licking their sores, the saliva secretion commences as soon as a slight wound is inflicted on them. In fact, if the Paquelin were merely shown to the animal saliva would commence to flow, after a few experiences with it, and the slightest cauterization anywhere on the body would be followed by the increased secretion, with one exception. This exception was the top of the head. The dogs can not reach the top of their heads with their tongue, and no saliva secretion followed an injury at this point.

196. **Tuberculosis of the Optic Nerve.**—Michel describes and illustrates the pathologic anatomy of tubercular affections of the trunk of the optic nerve. They have been observed almost exclusively in children, and usually present the clinical aspect of a retrobulbar neuritis.

197. **Dosage of Exercise for Tuberculous Patients.**—Penzoldt argues that in case of doubt it is well to bear in mind that too little exercise in these cases is less injurious than too much. When the rectal temperature of a curable patient reaches or surpasses 38 C. he is best treated in bed. The bed can be moved on a veranda, and he therefore advises that all the bedrooms in sanatoriums should open on verandas. The bed rest must be as absolute as in case of typhoid fever. In all cases after acute onset or exacerbations of the tuberculous process the curable patients should avoid all unnecessary movements for an average of two months, even when the disease has seemed to become stationary. The patients should refrain from going up or down stairs, billiards, sports and even walks, except a very slow stroll to and fro. Much harm is done by the getting ready to go to a sanatorium, packing the trunk, etc. The patient should travel with a companion to carry all hand baggage and see that all arrangements are made as for a very sick person. Unless great care be used, the trip to the sanatorium is liable to induce an exacerbation that is responsible for the failure of treatment, and the fatal termination of otherwise curable cases. In determining the effect of exercise in the individual case, it is possible that much information may be derived from the pulse tested during, not after, the exercise and also from the respiration noted without attracting the patient's attention, possibly while taking the pulse. The temperature should always be taken deep in the rectum, and he urges that this method should supplant mouth temperature in all sanatoriums. When after a walk of fifteen to thirty minutes the rectal temperature is 37.8-9 C. (100 F.) it is suspicious, and 38 C. or over is a certain sign that the exercise was too vigorous. The temperature must be taken immediately after the end of the exercise, without any interval. A temperature of 37.8 C. is frequently noted in out-patients without the least trace of tuberculosis. The standard temperature in the evening after complete repose may be accepted as 37.5 C. Consequently tuberculous patients with this "repose temperature" or higher should be warned against unnecessary exercise. It should not be allowed until with material improvement in the general health the temperature does not rise higher with cautiously-attempted movements.

198. **Etiology of Noma.**—The assertions of Perthes in regard to the discovery of a mycelium in cases of noma have been confirmed by Sieffert and Von Ranke now presents illustrations of another case in which the thread fungi were prominently present.

199. **Schleich Narcosis.**—The Schleich Mixture No. 1 was used by Von Winckel in 100 cases and all the particulars carefully tabulated. They show that the time required and the amount of the anesthetic were less than in the narcoses with ether, but that threatening by-effects occurred more frequently and were more serious than with the ether.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and Especially Prepared Articles on Medicine, Neurology, Surgery, Therapeutics, Obstetrics, Pediatrics, Pathology, Dermatology, Diseases of the Ear, Eye, Nose and Throat, and Other Topics of Interest to Students and Practitioners. By Leading Members of the Medical Profession Throughout the World. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, with the Collaboration of John B. Murphy, M.D., Chicago, Alexander D. Blackader, M.D., Montreal, H. C. Wood, M.D., Philadelphia, T. M. Rotch, M.D., Boston, E. Landolt, M.D., Paris, Thomas G. Morton, M.D., Philadelphia, James J. Walsh, M.D., New York, J. W. Ballantyne, M.D., Edinburgh, and John Harold, M.D., London, with Regular Correspondents in Montreal, London, Paris, Leipsic, and Vienna. Volume IV. Twelfth Series, 1903. Cloth. Pp. 317. Price, $2.00. Philadelphia: J. B. Lippincott Co. 1903.

A TEXT-BOOK OF PHARMACOLOGY AND THERAPEUTICS, or the Action of Drugs in Health and Disease. By Arthur R. Cushny, M.A., M.D., Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan. Third Edition, Revised and Enlarged. Illustrated with 52 Engravings. Cloth. Pp. 756. Price, $3.75. Philadelphia and New York: Lea Brothers & Co.

RECENT ELECTRO-THERAPEUTIC WORK IN MEDICINE AND SURGERY. By John MacIntyre, M.B., F.R.S.E., F.R.M.S., M.I.E.E., Surgeon for Diseases of the Nose and Throat, Glasgow Royal Infirmary. Reprinted from the *Glasgow Medical Journal* for August, 1902. Cloth. Glasgow: Alex. MacDougall. 1902.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. Thirteenth Series. Edited by H. L. Burrell, M.D., W. T. Councilman, M.D., and Charles F. Withington, M.D. Paper. Pp. 205. Boston: Published by the Trustees. 1902.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Sixteenth Session, Held at Philadelphia, June 5, 6 and 7, 1902. Volume XV. Cloth. Pp. 216. Philadelphia: Published by the Association. 1902.

U. S. DEPARTMENT OF AGRICULTURE. EIGHTEENTH ANNUAL REPORT OF THE BUREAU OF ANIMAL INDUSTRY, for the Year 1901. Cloth. Pp. 706. Washington: The Government Printing Office. 1902.

REPORT OF THE TERRITORIAL BOARD OF HEALTH FOR OKLAHOMA. E. E. Cowdrick, Superintendent, Enid, Oklahoma. Paper. Pp. 84. Guthrie, Okla.: State Capital Co. 1902.

The Public Service.

Army Changes.

Movements of Officers of the Medical Department, U. S. Army, under orders from the Adjutant-General's Office, Washington, D. C., from Jan. 19 to 24, 1903:

Branch, Frederick D., contract surgeon, U. S. A., now at East Springfield, N. Y., will proceed to Columbia Arsenal, Tenn., and report in person to the commanding officer thereof for duty, and by letter to the commanding general, Department of the Lakes.

Stone, John H., captain and asst.-surgeon, U. S. A., is detailed as a member of the examining board convened at Fort Leavenworth, Kan., vice First Lieut. David Baker, asst.-surgeon, hereby relieved.

Navy Changes.

Changes in the Medical Corps of the Navy, for the week of January 24:

Drs. G. H. Hart, A. W. Kaines, T. C. Foster, W. H. Block and J. R. Dykes, appointed acting assistant-surgeons.

Surgeon W. F. Arnold, detached from Cavite Naval Station and ordered to Port Isabela, P. I.

Asst.-Surgeon C. M. Oman, detached from Port Isabela, and ordered to the *Frolic*.

P. A. Surgeon A. G. Grunwell, detached from the Naval Hospital, Norfolk, Va., and ordered to the Naval Hospital, Washington, D. C.

P. A. Surgeon N. O. Huntington, detached from the Navy Yard, New York, and ordered to the *Maine*.

P. A. Surgeon D. B. Kerr, detached from recruiting duty and ordered to the *Wabash*.

P. A. Surgeon R. C. Holcomb, commissioned passed assistant-surgeon.

Asst.-Surgeon C. H. DeLancy, detached from recruiting duty, and ordered to the Naval Hospital, Norfolk, Va.

Asst.-Surgeon F. M. Bogan, detached from Naval Hospital, Washington, D. C., and ordered to the Navy Yard, Washington.

Dr. J. P. DeBruler, appointed assistant-surgeon, Jan. 3, 1903.

A. A. Surgeons R. A. Campbell, W. P. Keene and R. B. Chapman, ordered to duty with recruiting party.

P. A. Surgeon R. W. Plummer, detached from recruiting duty and ordered to the *Prairie*.

P. A. Surgeon F. M. Furlong, detached from recruiting duty and ordered to the Navy Yard, New York.

A. A. Surgeon J. T. Miller, ordered to recruiting duty.

A. A. Surgeon W. H. Janney, ordered to the Naval Hospital, Port Royal, S. C.

Surgeon A. M. Moore, retired, appointed member of board of examiners, civil engineers, Chicago.

Surgeon J. C. Byrnes, additional duty as member of board, examination of civil engineers, New York.

Surgeon E. M. Blackwell, additional duty as member of board, examination for civil engineers, New York.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended Jan. 22, 1903:

Surgeon Preston H. Bailhache, leave of absence for thirty days from January 6, amended so that it shall be for 12 days.

Surgeon H. W. Austin, leave of absence for three days under Paragraph 179 of the regulations.

P. A. Surgeon G. M. Guiteras, granted leave of absence for seven days, under Paragraph 181 of the regulations, from January 19.

P. A. Surgeon J. H. Oakley, leave of absence for two days granted by Bureau letter of January 13 revoked.

Asst.-Surgeon W. A. Korn, to proceed to Delaware Breakwater Quarantine, and assume temporary charge of the station during the absence, on leave of P. A. Surgeon C. H. Lavinder.

Asst.-Surgeon J. S. Boggess, granted leave of absence for four days from January 21.

A. A. Surgeon F. F. Sams, leave of absence for thirty days from January 1, granted by Department letter of January 5, amended to read thirty days from January 5.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Jan. 4, 1903:

SMALLPOX—UNITED STATES.

California: San Francisco, Dec. 28-Jan 11, 10 cases.
Colorado: Denver, Jan. 3-10, 7 cases.
District of Columbia: Washington, Jan. 10-17, 2 cases.
Illinois: Chicago, Jan. 10-17, 14 cases.
Indiana: Jan. 10-17, Evansville, 3 cases, 2 imported on river steamer; South Bend, 5 cases.
Kansas: Wichita, Jan. 10-17, 1 case.
Kentucky: Lexington, Jan. 10-17, 1 case; Louisville, Jan. 14, 1 case.
Louisiana: New Orleans, Jan. 10-17, 1 case.
Maine: Jan. 10-17, Biddeford, 15 cases; Lewiston, 17 cases.
Massachusetts: Jan. 10-17, Boston, 15 cases, 3 deaths; Cambridge, 1 case; Chelsea, 1 case; Melrose, 1 case.
Michigan: Grand Rapids, Jan. 10-17, 6 cases.
Missouri: St. Louis, Jan. 4-18, 31 cases.
Nebraska: Omaha, Jan. 10-17, 10 cases.
New Hampshire: Nashua, Jan. 10-17, 4 cases.
New Jersey: Jan. 10-17, Camden, 3 cases; Newark, 3 cases, 1 death; Plainfield, 2 cases.
New York: Jan. 10-17, Buffalo, 5 cases; New York, 2 cases, 1 death.
Ohio: Cincinnati, Jan. 2-16, 22 cases; Cleveland, Jan. 10-17, 16 cases; Dayton, Jan. 10-17, 4 cases; Hamilton, Jan. 10-17, 1 case.
Pennsylvania: Jan. 10-17, Altoona, 1 case; Erie, 4 cases, 1 death; Johnstown, 8 cases; McKeesport, 3 cases; Philadelphia, 35 cases, 2 deaths; Pittsburg, 19 cases, 3 deaths.
South Carolina: Charleston, Jan. 3-17, 9 cases.
Tennessee: Memphis, Jan. 10-17, 4 cases.
Texas: San Antonio, Dec. 1-31, 3 cases.
Utah: Salt Lake City, Jan. 3-17, 45 cases, 1 death.
Virginia: Danville, Jan. 10-17, 9 cases, 1 death.
Wisconsin: Green Bay, Jan. 11-18, 1 case; Milwaukee, Jan. 10-17, 13 cases.

SMALLPOX—FOREIGN.

Austria: Prague, Dec. 20-27, 5 cases.
Barbados: Dec. 19-Jan. 2, 9 cases, 1 death.
Belgium: Dec. 20-27, Antwerp, 4 cases, 1 death; Brussels, 2 deaths.
Brazil: Bahia, Dec. 13-27, 4 cases.
Canada: Amherstburg, Jan. 10-17, 2 cases.
Canary Islands: Las Palmas, Dec. 6-13, 2 cases.
Great Britain: Dec. 27-Jan. 3, Birmingham, 2 cases; Leeds, 7 cases; Liverpool, 48 cases, 3 deaths; London, 14 cases; Manchester, 5 cases.
India: Bombay, Dec. 9-23, 10 deaths; Madras, Nov. 27-Dec. 12, 2 deaths.
Italy: Palermo, Dec. 20-27, 13 cases, 1 death.
Mexico: City of Medico, Jan. 4-14, 4 cases, 2 deaths.
Russia: Moscow, Dec. 13-20, 2 cases, 2 deaths; Odessa, Dec. 20-27, 5 cases, 2 deaths; St. Petersburg, Dec. 20-27, 21 cases, 2 deaths.
Straits Settlements: Singapore, Nov. 8-Dec. 6, 12 deaths.

YELLOW FEVER.

Columbia: Panama, Dec. 29-Jan. 12, 9 cases, 3 deaths.
Ecuador: Guayaquil, Dec. 20-Jan. 3, 22 deaths.
Mexico: Tampico, Jan. 3-10, 6 deaths; Vera Cruz, Jan. 3-17, 9 cases, 8 deaths.

CHOLERA—INSULAR.

Philippines: Manila, Nov. 16-Dec. 6, 154 cases, 126 deaths; total to Dec. 9, 4,533 cases and 3,402 deaths. Provinces, Nov. 16-Dec. 6, 1,358 cases, 852 deaths; total to Dec. 9, approximate, 117,246 cases and 74,505 deaths.

CHOLERA—FOREIGN.

Egypt: Alexandria, Dec. 12-26, 21 cases, 16 deaths.
India: Bombay, Dec. 9-23, 3 deaths; Calcutta, Dec. 6-13, 35 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, Dec. 31, 1 death.

PLAGUE—FOREIGN.

India: Bombay, Dec. 8-23, 243 deaths; Calcutta. Dec. 6-13, 18 deaths; Karachi, Dec. 7-14, 17 cases, 14 deaths.